Abdalati, W., Zwally, H.J., Bindschadler, R., Csatho, B., Farrell, S.L., Fricker, H.A., Harding, D., Kwok, R., Lefsky, M., et al., 2010, The ICESat-2 Laser Altimetry Mission: Proceedings of the IEEE, v. 98, no. 5, p. 735-751, at http://dx.doi.org/10.1109/JPROC.2009.2034765.

Achberger, C., Ackerman, S.A., Ahlstrøm, A., Alfaro, E.J., Allan, R.J., Alves, L., Amador, J.A., Amelie, V., Andrianjafinirina, S., et al., 2011, State of the climate in 2010: Bulletin of the American Meteorological Society, v. 92, no. 6, p. S1-S236, at http://dx.doi.org/10.1175/1520-0477-92.6.S1.

Achberger, C., Ackerman, S.A., Albanil, A., Alexander, P., Alfaro, E.J., Allan, R., Alves, L.M., Amador, J.A., Ambenje, P., et al., 2013, State of the climate in 2012: Bulletin of the American Meteorological Society, v. 94, no. 8, p. S1-S238, at http://dx.doi.org/10.1175/2013BAMSStateoftheClimate.1.

Agam, N., Kustas, W.P., Anderson, M.C., Li, F., and Colaizzi, P.D., 2008, Utility of thermal image sharpening for monitoring field-scale evapotranspiration over rainfed and irrigated agricultural regions: Geophysical Research Letters, v. 35, no. 2, citation number L02402, at http://dx.doi.org/10.1029/2007GL032195.

Agam, N., Kustas, W.P., Anderson, M.C., Li, F., and Colaizzi, P.D., 2007, Utility of thermal sharpening over Texas high plains irrigated agricultural fields: Journal of Geophysical Research D—Atmospheres, v. 112, no. 19, citation number D19110, at http://dx.doi.org/10.1029/2007JD008407.

Agam, N., Kustas, W.P., Anderson, M.C., Li, F., and Neale, C.M.U., 2007, A vegetation index based technique for spatial sharpening of thermal imagery: Remote Sensing of Environment, v. 107, no. 4, p. 545-558, at http://dx.doi.org/10.1016/j.rse.2006.10.006.

Agam, N., Kustas, W.P., Anderson, M.C., Norman, J.M., Colaizzi, P.D., Howell, T.A., Prueger, J.H., Meyers, T.P., and Wilson, T.B., 2010, Application of the Priestley-Taylor approach in a two-source surface energy balance model: Journal of Hydrometeorology, v. 11, no. 1, p. 185-198, at http://dx.doi.org/10.1175/2009JHM1124.1.

Aghakouchak, A., Farahmand, A., Melton, F.S., Teixeira, J., Anderson, M.C., Wardlow, B.D., and Hain, C.R., 2015, Remote sensing of drought—Progress, challenges and opportunities: Reviews of Geophysics, v. 53, no. 2, p. 452-480, at http://dx.doi.org/10.1002/2014RG000456.

Ahmed, O.S., Franklin, S.E., and Wulder, M.A., 2014, Interpretation of forest disturbance using a time series of Landsat imagery and canopy structure from airborne lidar: Canadian Journal of Remote Sensing, v. 39, no. 6, p. 521-542, at http://dx.doi.org/10.5589/m14-004.

Ahmed, O.S., Franklin, S.E., Wulder, M.A., and White, J.C., 2015, Characterizing stand-level forest canopy cover and height using Landsat time series, samples of airborne LiDAR, and the Random Forest algorithm: ISPRS Journal of Photogrammetry and Remote Sensing, v. 101, p. 89-101, at http://dx.doi.org/10.1016/j.isprsjprs.2014.11.007.

Ahmed, O.S., Franklin, S.E., Wulder, M.A., and White, J.C., in press, Extending airborne lidar-derived estimates of forest canopy cover and height over large areas using kNN With Landsat time series data: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, p. 0-0, at http://dx.doi.org/10.1109/JSTARS.2015.2492363.

Alcantara, C., Kuemmerle, T., Baumann, M., Bragina, E.V., Griffiths, P., Hostert, P., Knorn, J., Müller, D., Prishchepov, A.V., et al., 2013, Mapping the extent of abandoned farmland in Central and Eastern Europe using MODIS time series satellite data: Environmental Research Letters, v. 8, no. 3, article number 035035, at http://dx.doi.org/10.1088/1748-9326/8/3/035035.

Allen, R.G., 2007, Footprint analysis to assess the conditioning of temperature and humidity measurements in a weather station vicinity, *in* Kabbes, K.C., ed., Restoring our natural habitat, World Environmental and Water Resources Congress, Tampa, Fla., 15-19 May 2007, Proceedings: Reston, Va., American Society of Civil Engineers, p. 1-12, at http://dx.doi.org/10.1061/40856(200)292.

Allen, R.G., 2011, Skin layer evaporation to account for small precipitation events-An enhancement to the FAO-56 evaporation model: Agricultural Water Management, v. 99, no. 1, p. 8-18, at http://dx.doi.org/10.1016/j.agwat.2011.08.008.

Allen, R.G., Burnett, B., Kramber, W., Huntington, J., Kjaersgaard, J., Kilic, A., Kelly, C., and Trezza, R., 2013, Automated calibration of the METRIC-Landsat evapotranspiration process: Journal of the American Water Resources Association, v. 49, no. 3, p. 563-576, at http://dx.doi.org/10.1111/jawr.12056.

Allen, R.G., Irmak, A., Trezza, R., Hendrickx, J.M.H., Bastiaanssen, W., and Kjaersgaard, J., 2011, Satellite-based ET estimation in agriculture using SEBAL and METRIC: Hydrological Processes, v. 25, no. 26, p. 4011-4027, at http://dx.doi.org/10.1002/hyp.8408.

Allen, R.G., Kilic, A., Suyker, A., and Okalebo, J., 2015, Fitting measured evapotranspiration data to the FA056 dual crop coefficient method, *in* IA Irrigation Symposium—Emerging Technologies for Sustainable Irrigation - A Tribute to the Career of Terry Howell, Sr., Long Beach, Calif., 10-12 November 2015, Conference Proceedings: St. Joseph, Mich., American Society of Agricultural and Biological Engineers, p. 434-469, at http://dx.doi.org/10.13031/irrig.20152143520.

Allen, R.G., Morton, C., Kamble, B., Kilic, A., Huntington, J., Thau, D., Gorelick, N., Erickson, T., Moore, R., et al., 2015, EEFlux—A Landsat-based evapotranspiration mapping tool on the Google Earth Engine, *in* IA Irrigation Symposium—Emerging Technologies for Sustainable Irrigation - A Tribute to the Career of Terry Howell, Sr., Long Beach, Calif., 10-12 November 2015, Conference Proceedings: St. Joseph, Mich., American Society of Agricultural and Biological Engineers, p. 424-433, at http://dx.doi.org/10.13031/irrig.20152143511.

Allen, R.G., and Pereira, L.S., 2009, Estimating crop coefficients from fraction of ground cover and height, *in* Starrett, S., ed., Great rivers, World Environmental and Water Resources Congress, Kansas City, Mo., 17-21 May 2009, Proceedings: Reston, Va., American Society of Civil Engineers, p. 4036-4050, at http://dx.doi.org/10.1061/41036(342)408.

Allen, R.G., Pereira, L.S., Howell, T.A., and Jensen, M.E., 2011, Evapotranspiration information reporting—I. Factors governing measurement accuracy: Agricultural Water Management, v. 98, no. 6, p. 899-920, at http://dx.doi.org/10.1016/j.agwat.2010.12.015.

Allen, R.G., Pereira, L.S., Howell, T.A., and Jensen, M.E., 2011, Evapotranspiration information reporting—II. Recommended documentation: Agricultural Water Management, v. 98, no. 6, p. 921-929, at http://dx.doi.org/10.1016/j.agwat.2010.12.016.

Allen, R.G., Pruitt, W.O., Wright, J.L., Howell, T.A., Ventura, F., Snyder, R., Itenfisu, D., Steduto, P., Berengena, J., et al., 2006, A recommendation on standardized surface resistance for hourly calculation of reference ETo by the FAO56 Penman-Monteith method: Agricultural Water Management, v. 81, no. 1-2, p. 1-22, at http://dx.doi.org/10.1016/j.agwat.2005.03.007.

Allen, R.G., Tasumi, M., Morse, A., Trezza, R., Wright, J.L., Bastiaanssen, W., Kramber, W., Lorite, I., and Robison, C.W., 2007, Satellite-based energy balance for mapping evapotranspiration with

internalized calibration (METRIC)—Applications: Journal of Irrigation and Drainage Engineering, v. 133, no. 4, p. 395-406, at http://dx.doi.org/10.1061/(ASCE)0733-9437(2007)133:4(395).

Allen, R.G., Tasumi, M., and Trezza, R., 2006, Benefits from tying satellite-based energy balance to reference evapotranspiration, *in* D'Urso, G., Osann Jochum, M.A., and Moreno, J., eds., Earth observation for vegetation monitoring and water management, Naples, Italy, 10-11 November 2005, Proceedings: Melville, N.Y., American Institute of Physics, p. 127-137, at http://dx.doi.org/10.1063/1.2349336.

Allen, R.G., Tasumi, M., and Trezza, R., 2007, Satellite-based energy balance for mapping evapotranspiration with internalized calibration (METRIC)—Model: Journal of Irrigation and Drainage Engineering, v. 133, no. 4, p. 380-394, at http://dx.doi.org/10.1061/(ASCE)0733-9437(2007)133:4(380).

Allen, R.G., Tasumi, M., and Trezza, R., 2007, Why use reference evapotranspiration to calibrate satellite-based energy balances?, *in* Kabbes, K.C., ed., Restoring our natural habitat, World Environmental and Water Resources Congress, Tampa, Fla., 15-19 May 2007, Proceedings: Reston, Va., American Society of Civil Engineers, p. 1-12, at http://dx.doi.org/10.1061/40856(200)272.

Allen, R.G., Tasumi, M., Trezza, R., Robison, C.W., Garcia, M., Toll, D., Arsenault, K., Hendrickx, J.M.H., and Kjaersgaard, J., 2008, Comparison of evapotranspiration images derived from MODIS and Landsat along the middle Rio Grande, *in* Babcock Jr., R.W., and Walton, R., eds., World Environmental and Water Resources Congress, Honolulu, Hawaii, 12-16 May 2008, Proceedings: Reston, Va., American Society of Civil Engineers, p. 1-13, at http://dx.doi.org/10.1061/40976(316)87.

Allen, R.G., Trezza, R., Kilic, A., Tasumi, M., and Li, H., 2013, Sensitivity of Landsat-scale energy balance to aerodynamic variability in mountains and complex terrain: Journal of the American Water Resources Association, v. 49, no. 3, p. 592-604, at http://dx.doi.org/10.1111/jawr.12055.

Allen, R.G., Trezza, R., and Tasumi, M., 2006, Analytical integrated functions for daily solar radiation on slopes: Agricultural and Forest Meteorology, v. 139, no. 1-2, p. 55-73, at http://dx.doi.org/10.1016/j.agrformet.2006.05.012.

Allen, R.G., and Wright, J.L., 2009, Estimation of evaporation and evapotranspiration during nongrowing seasons using a dual crop coefficient, *in* Starrett, S., ed., Great rivers, World Environmental and Water Resources Congress, Kansas City, Mo., 17-21 May 2009, Proceedings: Reston, Va., American Society of Civil Engineers, p. 4158-4171, at http://dx.doi.org/10.1061/41036(342)419.

Alley, K.E., Scambos, T.A., Siegfried, M.R., and Fricker, H.A., 2016, Impacts of warm water on Antarctic ice shelf stability through basal channel formation: Nature Geoscience, v. 9, no. 4, p. 290-293, at http://dx.doi.org/10.1038/ngeo2675.

Amos, K.J., Croke, J.C., Hughes, A.O., Chapman, J., Takken, I., and Lymburner, L., 2008, A catchment-scale assessment of anabranching in the 143 000 km2 Fitzroy River catchment, north-eastern Australia: Earth Surface Processes and Landforms, v. 33, no. 8, p. 1222-1241, at http://dx.doi.org/10.1002/esp.1609.

Anderson, G.P., Schaaf, C.B., Loukachine, K., Stone, R.S., Andrews, E., Shettle, E.P., Dutton, E.G., Roman III, M.O., Stohl, A., et al., 2008, Assessing the radiative impact of aerosol smoke using MODTRAN™5, *in* Shen, S.S., and Lewis, P.E., eds., Algorithms and Technologies for Multispectral, Hyperspectral, and Ultraspectral Imagery, XIV, Orlando, Fla., 17-19 March 2008, Proceedings of SPIE Vol. 6966: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 696617, at http://dx.doi.org/10.1117/12.782364.

Anderson, M., and Kustas, W., 2008, Thermal remote sensing of drought and evapotranspiration: Eos, v. 89, no. 26, p. 233-234, at http://dx.doi.org/10.1029/2008EO260001.

Anderson, M., Twine, T., and Black, A., 2009, Foreword for special issue on Environmental Biophysics: Agricultural and Forest Meteorology, v. 149, no. 12, p. 2061-2063, at http://dx.doi.org/10.1016/j.agrformet.2009.09.003.

Anderson, M., Zaitchik, B.F., and Simane, B., 2012, Water balance from space—promoting climate resilience in the Blue Nile/Abay Highlands: Resource—Engineering and Technology for Sustainable World, v. 19, no. 3, p. 14-15, at http://dx.doi.org/10.13031/2013.41352.

Anderson, M.C., Allen, R.G., Morse, A., and Kustas, W.P., 2012, Use of Landsat thermal imagery in monitoring evapotranspiration and managing water resources: Remote Sensing of Environment, v. 122, p. 50-65, at http://dx.doi.org/10.1016/j.rse.2011.08.025.

Anderson, M.C., Hain, C., Otkin, J., Zhan, X., Mo, K., Svoboda, M., Wardlow, B., and Pimstein, A., 2013, An intercomparison of drought indicators based on thermal remote sensing and NLDAS-2 simulations with U.S. drought monitor classifications: Journal of Hydrometeorology, v. 14, no. 4, p. 1035-1056, at http://dx.doi.org/10.1175/JHM-D-12-0140.1.

Anderson, M.C., Hain, C., Wardlow, B., Pimstein, A., Mecikalski, J.R., and Kustas, W.P., 2011, Evaluation of drought indices based on thermal remote sensing of evapotranspiration over the continental United States: Journal of Climate, v. 24, no. 8, p. 2025-2044, at http://dx.doi.org/10.1175/2010JCLI3812.1.

Anderson, M.C., and Kustas, W.P., 2008, Mapping evapotranspiration and drought at local to continental scales using thermal remote sensing, *in* International Geoscience and Remote Sensing Symposium, Boston, Mass., 7-11 July 2008, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. IV121-IV123, at http://dx.doi.org/10.1109/IGARSS.2008.4779671.

Anderson, M.C., Kustas, W.P., Alfieri, J.G., Gao, F., Hain, C., Prueger, J.H., Evett, S., Colaizzi, P., Howell, T., et al., 2012, Mapping daily evapotranspiration at Landsat spatial scales during the BEAREX'08 field campaign: Advances in Water Resources, v. 50, p. 134-151, at http://dx.doi.org/10.1016/j.advwatres.2012.06.005.

Anderson, M.C., Kustas, W.P., and Norman, J.M., 2006, A multi-scale remote sensing-based modeling system for estimating local and regional fluxes, *in* E'Urso, G., Osann Jochum, M.A., and Moreno, J., eds., AIP Conference, Naples, Italy, 10-11 November 2005, Proceedings: Melville, N.Y., American Institute of Physics, p. 146-153, at http://dx.doi.org/10.1063/1.2349338.

Anderson, M.C., Kustas, W.P., and Norman, J.M., 2007, Upscaling flux observations from local to continental scales using thermal remote sensing: Agronomy Journal, v. 99, no. 1, p. 240-254, at http://dx.doi.org/10.2134/agronj2005.0096S.

Anderson, M.C., Kustas, W.P., Norman, J.M., Hain, C.R., Mecikalski, J.R., Schultz, L., González-Dugo, M.P., Cammalleri, C., D'Urso, G., et al., 2011, Mapping daily evapotranspiration at field to continental scales using geostationary and polar orbiting satellite imagery: Hydrology and Earth System Sciences, v. 15, no. 1, p. 223-239, at http://dx.doi.org/10.5194/hess-15-223-2011.

Anderson, M.C., Norman, J.M., Kustas, W.P., Houborg, R., Starks, P.J., and Agam, N., 2008, A thermal-based remote sensing technique for routine mapping of land-surface carbon, water and energy fluxes from field to regional scales: Remote Sensing of Environment, v. 112, no. 12, p. 4227-4241, at http://dx.doi.org/10.1016/j.rse.2008.07.009.

Anderson, M.C., Norman, J.M., Mecikalski, J.R., Otkin, J.A., and Kustas, W.P., 2007, A climatological study of evapotranspiration and moisture stress across the continental United States based on thermal remote sensing—1. Model formulation: Journal of Geophysical Research D—Atmospheres, v. 112, no. 10, citation number D10117, at http://dx.doi.org/10.1029/2006JD007506.

Anderson, M.C., Norman, J.M., Mecikalski, J.R., Otkin, J.A., and Kustas, W.P., 2007, A climatological study of evapotranspiration and moisture stress across the continental United States based on thermal remote sensing—2. Surface moisture climatology: Journal of Geophysical Research D—Atmospheres, v. 112, no. 11, citation number D11112, at http://dx.doi.org/10.1029/2006JD007507.

Anderson, M.C., Zolin, C.A., Hain, C.R., Semmens, K., Tugrul Yilmaz, M., and Gao, F., 2015, Comparison of satellite-derived LAI and precipitation anomalies over Brazil with a thermal infrared-based Evaporative Stress Index for 2003-2013: Journal of Hydrology, v. 526, p. 287-302, at http://dx.doi.org/10.1016/j.jhydrol.2015.01.005.

Anderson, M.C., Zolin, C.A., Sentelhas, P.C., Hain, C.R., Semmens, K., Tugrul Yilmaz, M., Gao, F., Otkin, J.A., and Tetrault, R., 2016, The Evaporative Stress Index as an indicator of agricultural drought in Brazil—An assessment based on crop yield impacts: Remote Sensing of Environment, v. 174, p. 82-99, at http://dx.doi.org/10.1016/j.rse.2015.11.034.

Anderson, W.B., Zaitchik, B.F., Hain, C.R., Anderson, M.C., Yilmaz, M.T., Mecikalski, J., and Schultz, L., 2012, Towards an integrated soil moisture drought monitor for East Africa: Hydrology and Earth System Sciences, v. 16, no. 8, p. 2893-2913, at http://dx.doi.org/10.5194/hess-16-2893-2012.

Andrew, M.E., Nelson, T.A., Wulder, M.A., Hobart, G.W., Coops, N.C., and Farmer, C.J.Q., 2013, Ecosystem classifications based on summer and winter conditions: Environmental Monitoring and Assessment, v. 185, no. 4, p. 3057-3079, at http://dx.doi.org/10.1007/s10661-012-2773-z.

Andrew, M.E., and Wulder, M.A., 2011, Idiosyncratic responses of Pacific salmon species to land cover, fragmentation, and scale: Ecography, v. 34, no. 5, p. 780-797, at http://dx.doi.org/10.1111/j.1600-0587.2010.06607.x.

Andrew, M.E., Wulder, M.A., and Cardille, J.A., 2014, Protected areas in boreal Canada—A baseline and considerations for the continued development of a representative and effective reserve network: Environmental Reviews, v. 22, no. 2, p. 135-160, at http://dx.doi.org/10.1139/er-2013-0056.

Andrew, M.E., Wulder, M.A., and Coops, N.C., 2011, How do butterflies define ecosystems? A comparison of ecological regionalization schemes: Biological Conservation, v. 144, no. 5, p. 1409-1418, at http://dx.doi.org/10.1016/j.biocon.2011.01.010.

Andrew, M.E., Wulder, M.A., and Coops, N.C., 2012, Identification of de facto protected areas in boreal Canada: Biological Conservation, v. 146, no. 1, p. 97-107, at http://dx.doi.org/10.1016/j.biocon.2011.11.029.

Andrew, M.E., Wulder, M.A., and Coops, N.C., 2011, Patterns of protection and threats along productivity gradients in Canada: Biological Conservation, v. 144, no. 12, p. 2891-2901, at http://dx.doi.org/10.1016/j.biocon.2011.08.006.

Andrew, M.E., Wulder, M.A., Coops, N.C., and Baillargeon, G., 2012, Beta-diversity gradients of butterflies along productivity axes: Global Ecology and Biogeography, v. 21, no. 3, p. 352-364, at http://dx.doi.org/10.1111/j.1466-8238.2011.00676.x.

Andrew, M.E., Wulder, M.A., and Nelson, T.A., 2014, Potential contributions of remote sensing to ecosystem service assessments: Progress in Physical Geography, v. 38, no. 3, p. 328-353, at http://dx.doi.org/10.1177/0309133314528942.

Angal, A., Brinkmann, J., Mishra, N., Link, D., Xiong, X.J., and Helder, D., 2015, Cross-calibration of the reflective solar bands of Terra MODIS and Landsat 7 Enhanced Thematic Mapper plus over PICS using different approaches, *in* Meynart, R., Neeck, S.P., and Shimoda, H., eds., Sensors, Systems, and Next-Generation Satellites XIX, Toulouse, France, 21 September 2015, Proceedings of SPIE Vol. 9639: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 963911, at http://dx.doi.org/10.1117/12.2195170.

Angal, A., McCorkel, J., Cook, B., Corp, L.A., and Thome, K., 2015, Radiometric calibration of G-LiHT's imaging spectrometer using GLAMR for satellite sensor intercalibration, *in* Butler, J.J., Xiong, X., and Gu, X., eds., Earth Observing Systems XX, San Diego, Calif., 9 August 2015, Proceedings of SPIE Vol. 9607: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 96070c, at http://dx.doi.org/10.1117/12.2188763.

Angal, A., Mishra, N., Xiong, X., and Helder, D., 2014, Cross-calibration of Landsat 5 TM and Landsat 8 OLI with aqua MODIS using PICS, *in* Butler, J.J., Xiong, X., and Gu, X., eds., Earth Observing Systems XIX, San Diego, Calif., 18-20 August 2014, Proceedings of SPIE Vol. 9218: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 92180k, at http://dx.doi.org/10.1117/12.2062165.

Angal, A., Xiong, X.J., Choi, T.J., Chander, G., Mishra, N., and Helder, D.L., 2013, Impact of Terra MODIS Collection 6 on long-term trending comparisons with Landsat 7 ETM+ reflective solar bands: Remote Sensing Letters, v. 4, no. 9, p. 873-881, at http://dx.doi.org/10.1080/2150704X.2013.809496.

Archibald, S., and Roy, D.P., 2009, Identifying individual fires from satellite-derived burned area data, *in* International Geoscience and Remote Sensing Symposium, Cape Town, South Africa, 12-17 July 2009, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. III160-III163, at http://dx.doi.org/10.1109/IGARSS.2009.5417974.

Archibald, S., Roy, D.P., van Wilgen, B.W., and Scholes, R.J., 2009, What limits fire? An examination of drivers of burnt area in Southern Africa: Global Change Biology, v. 15, no. 3, p. 613-630, at http://dx.doi.org/10.1111/j.1365-2486.2008.01754.x.

Archibald, S., Scholes, R.J., Roy, D.P., Roberts, G., and Boschetti, L., 2010, Southern African fire regimes as revealed by remote sensing: International Journal of Wildland Fire, v. 19, no. 7, p. 861-878, at http://dx.doi.org/10.1071/WF10008.

Arroyo, L.A., Healey, S.P., Cohen, W.B., Cocero, D., and Manzanera, J.A., 2006, Using object-oriented classification and high-resolution imagery to map fuel types in a Mediterranean region: Journal of Geophysical Research G—Biogeosciences, v. 111, no. 4, citation number G04S04, at http://dx.doi.org/10.1029/2005JG000120.

Arvidson, T., Goward, S., Gasch, J., and Williams, D., 2006, Landsat-7 long-term acquisition plan—Development and validation: Photogrammetric Engineering and Remote Sensing, v. 72, no. 10, p. 1137-1146, at http://dx.doi.org/10.14358/PERS.72.10.1137.

Awadallah, M., Gopalakrishnan, R., Ghannam, S., Abbott, A.L., Wynne, R.H., and Thomas, V.A., 2015, An adaptive ground-filtering technique for noisy high-altitude laser profiling data, *in* Imaging Geospatial Technology Forum, IGTF - ASPRS, Annual Conference, Tampa, Fla., 4-8 May 2015,

Proceedings: Bethesda, Md., American Society for Photogrammetry and Remote Sensing, p. 32-41, at http://www.asprs.org/a/publications/proceedings/IGTF2015/2C%5BLD5H4%5D-paper.pdf.

Baccini, A., Friedl, M.A., Woodcock, C.E., and Zhu, Z., 2007, Scaling field data to calibrate and validate moderate spatial resolution remote sensing models: Photogrammetric Engineering and Remote Sensing, v. 73, no. 8, p. 945-954, at http://dx.doi.org/10.14358/PERS.73.8.945.

Bala, G., Caldeira, K., and Nemani, R., 2010, Fast versus slow response in climate change—Implications for the global hydrological cycle: Climate Dynamics, v. 35, no. 2, p. 423-434, at http://dx.doi.org/10.1007/s00382-009-0583-y.

Bala, G., Caldeira, K., Nemani, R., Cao, L., Ban-Weiss, G., and Shin, H.J., 2011, Albedo enhancement of marine clouds to counteract global warming—Impacts on the hydrological cycle: Climate Dynamics, v. 37, no. 5, p. 915-931, at http://dx.doi.org/10.1007/s00382-010-0868-1.

Bala, G., Devaraju, N., Chaturvedi, R.K., Caldeira, K., and Nemani, R., 2013, Nitrogen deposition—How important is it for global terrestrial carbon uptake: Biogeosciences, v. 10, no. 11, p. 7147-7160, at http://dx.doi.org/10.5194/bg-10-7147-2013.

Bala, G., Gopalakrishnan, R., Jayaraman, M., Nemani, R., and Ravindranath, N.H., 2011, CO2-fertilization and potential future terrestrial carbon uptake in India: Mitigation and Adaptation Strategies for Global Change, v. 16, no. 2, p. 143-160, at http://dx.doi.org/10.1007/s11027-010-9260-z.

Bala, G., Krishna, S., Narayanappa, D., Cao, L., Caldeira, K., and Nemani, R., 2013, An estimate of equilibrium sensitivity of global terrestrial carbon cycle using NCAR CCSM4: Climate Dynamics, v. 40, no. 7-8, p. 1671-1686, at http://dx.doi.org/10.1007/s00382-012-1495-9.

Banaszkiewicz, M., Pignatelli, F., and Belward, A., 2006, GMES and the solar energy issue, chap. 15 *of* Dunlop, E.D., Wald, L., and Suri, M., eds., Solar energy resource management for electricity generation from local level to global scale: New York, N.Y., Nova Science Publishers, p. 181-190.

Banskota, A., Kayastha, N., Falkowski, M.J., Wulder, M.A., Froese, R.E., and White, J.C., 2014, Forest monitoring using Landsat time series data—A review: Canadian Journal of Remote Sensing, v. 40, no. 5, p. 362-384, at http://dx.doi.org/10.1080/07038992.2014.987376.

Banskota, A., Serbin, S.P., Wynne, R.H., Thomas, V.A., Falkowski, M.J., Kayastha, N., Gastellu-Etchegorry, J., and Townsend, P.A., 2015, An LUT-Based inversion of DART model to estimate forest LAI from hyperspectral data: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 8, no. 6, p. 3147-3160, at http://dx.doi.org/10.1109/JSTARS.2015.2401515.

Banskota, A., Wynne, R.H., Johnson, P., and Emessiene, B., 2011, Synergistic use of very high-frequency radar and discrete-return lidar for estimating biomass in temperate hardwood and mixed forests: Annals of Forest Science, v. 68, no. 2, p. 347-356, at http://dx.doi.org/10.1007/s13595-011-0023-0.

Banskota, A., Wynne, R.H., and Kayastha, N., 2011, Improving within-genus tree species discrimination using the discrete wavelet transform applied to airborne hyperspectral data: International Journal of Remote Sensing, v. 32, no. 13, p. 3551-3563, at http://dx.doi.org/10.1080/01431161003698302.

Banskota, A., Wynne, R.H., Serbin, S.P., Kayastha, N., Thomas, V.A., and Townsend, P.A., 2013, Utility of the wavelet transform for LAI estimation using hyperspectral data: Photogrammetric Engineering and Remote Sensing, v. 79, no. 7, p. 653-662, at http://dx.doi.org/10.14358/PERS.79.7.653.

Banskota, A., Wynne, R.H., Thomas, V.A., Serbin, S.P., Kayastha, N., Gastellu-Etchegorry, J.P., and Townsend, P.A., 2013, Investigating the utility of wavelet transforms for inverting a 3-D radiative transfer model using hyperspectral data to retrieve forest LAI: Remote Sensing, v. 5, no. 6, p. 2639-2659, at http://dx.doi.org/10.3390/rs5062639.

Barnes, C.A., and Roy, D.P., 2008, Radiative forcing over the conterminous United States due to contemporary land cover land use albedo change: Geophysical Research Letters, v. 35, no. 9, citation number L09706, at http://dx.doi.org/10.1029/2008GL033567.

Barnes, C.A., and Roy, D.P., 2010, Radiative forcing over the conterminous United States due to contemporary land cover land use change and sensitivity to snow and interannual albedo variability: Journal of Geophysical Research G—Biogeosciences, v. 115, no. 4, citation number G04033, at http://dx.doi.org/10.1029/2010JG001428.

Barnes, C.A., Roy, D.P., and Loveland, T.R., 2013, Projected surface radiative forcing due to 2000-2050 land-cover land-use albedo change over the eastern United States: Journal of Land Use Science, v. 8, no. 4, p. 369-382, at http://dx.doi.org/10.1080/1747423X.2012.667453.

Barsi, J.A., Hook, S.J., Palluconi, F.D., Schott, J.R., and Raqueno, N.G., 2006, Landsat TM and ETM+ thermal band calibration, *in* Butler, J.J., and Xiong, J., eds., Earth Observing Systems XI, San Diego, Calif., 14-16 August 2006, Proceedings of SPIE Vol. 6296: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 62960F, at http://dx.doi.org/10.1117/12.683212.

Barsi, J.A., Hook, S.J., Schott, J.R., Raqueno, N.G., and Markham, B.L., 2007, Landsat-5 thematic mapper thermal band calibration update: IEEE Geoscience and Remote Sensing Letters, v. 4, no. 4, p. 552-555, at http://dx.doi.org/10.1109/LGRS.2007.896322.

Barsi, J.A., Markham, B.L., Helder, D.L., and Chander, G., 2007, Radiometric calibration status of Landsat-7 and Landsat-5, *in* Meynart, R., Neeck, S.P., Shimoda, H., and Habib, S., eds., Sensors, Systems, and Next-Generation Satellites XI, Florence, Italy, 17-20 September 2007, Proceedings of SPIE Vol. 6744: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 67441F, at http://dx.doi.org/10.1117/12.738221.

Barsi, J.A., Markham, B.L., Schott, J.R., Hook, S.J., and Raqueno, N.G., 2009, Landsat-7 and Landsat-5 thermal band calibration updates, *in* Butler, J.J., Xiong, X., and Gu, X.F., eds., Earth Observing Systems XIV, San Diego, Calif., 3-5 August 2009, Proceedings of SPIE Vol. 7452: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 74520S, at http://dx.doi.org/10.1117/12.828501.

Barsi, J.A., Schott, J.R., Hook, S.J., Raqueno, N.G., Markham, B.L., and Radocinski, R.G., 2014, Landsat-8 thermal infrared sensor (TIRS) vicarious radiometric calibration: Remote Sensing, v. 6, no. 11, p. 11607-11626, at http://dx.doi.org/10.3390/rs61111607.

Bartels, S.F., Chen, H.Y.H., Wulder, M.A., and White, J.C., 2016, Trends in post-disturbance recovery rates of Canada's forests following wildfire and harvest: Forest Ecology and Management, v. 361, p. 194-207, at http://dx.doi.org/10.1016/j.foreco.2015.11.015.

Bartlett, B., Devaraj, C., Gartley, M., Salvaggio, C., and Schott, J.R., 2009, Spectro-polarimetric BRDF determination of objects using in-scene calibration materials for polarimetric imagers, *in* Shaw, J.A., and Tyo, J.S., eds., Polarization Science and Remote Sensing IV, San Diego, Calif., 3-4 August 2009, Proceedings of SPIE Vol. 7461: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 74610T, at http://dx.doi.org/10.1117/12.825359.

Bartlett, B., and Schott, J.R., 2009, Atmospheric compensation in the presence of clouds—An adaptive empirical line method (AELM) approach: Journal of Applied Remote Sensing, v. 3, no. 1, citation identifier 033507, at http://dx.doi.org/10.1117/1.3091937.

Bartlett, B., and Schott, J.R., 2007, Atmospheric inversion in the presence of clouds—an adaptive ELM approach, *in* Bartlett, B., and Schott, J.R., eds., Imaging Spectrometry, XII, San Diego, Calif., 28-29 August 2007, Proceedings of SPIE Vol. 6661: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 66610H, at http://dx.doi.org/10.1117/12.730636.

Bartlett, B.D., Gartley, M.G., Messinger, D.W., Salvaggio, C., and Schott, J.R., 2010, Spectro-polarimetric bidirectional reflectance distribution function determination of in-scene materials and its use in target detection applications: Journal of Applied Remote Sensing, v. 4, no. 1, citation identifier 043552, at http://dx.doi.org/10.1117/1.3518394.

Bartz, K.K., Ford, M.J., Beechie, T.J., Fresh, K.L., Pess, G.R., Kennedy, R.E., Rowse, M.L., and Sheer, M., 2015, Trends in developed land cover adjacent to habitat for threatened salmon in Puget Sound, Washington, U.S.A: PLoS ONE, v. 10, no. 4, at http://dx.doi.org/10.1371/journal.pone.0124415.

Bastiaanssen, W.G.M., Allen, R.G., Droogers, P., D'Urso, G., and Steduto, P., 2007, Twenty-five years modeling irrigated and drained soils—State of the art: Agricultural Water Management, v. 92, no. 3, p. 111-125, at http://dx.doi.org/10.1016/j.agwat.2007.05.013.

Bastiaanssen, W.G.M., Pelgrum, H., Soppe, R.W.O., Thoreson, B.P., Allen, R.G., and Teixeira, A.H.D.C., 2008, Thermal-infrared technology for local and regional scale irrigation analyses in horticultural systems, *in* Goodwin, I., and O'Connell, M.G., eds., International Symposium on Irrigation of Horticultural Crops, 5th, Mildura, Australia, 28 August-2 September 2006, Proceedings: Leuven, Belgium, International Society for Horticultural Science, p. 33-46, at http://www.actahort.org/books/792/index.htm.

Bater, C.W., Coops, N.C., Wulder, M.A., Hilker, T., Nielsen, S.E., McDermid, G., and Stenhouse, G.B., 2011, Using digital time-lapse cameras to monitor species-specific understorey and overstorey phenology in support of wildlife habitat assessment: Environmental Monitoring and Assessment, v. 180, no. 1-4, p. 1-13, at http://dx.doi.org/10.1007/s10661-010-1768-x.

Bater, C.W., Coops, N.C., Wulder, M.A., Nielsen, S.E., McDermid, G., and Stenhouse, G.B., 2011, Design and installation of a camera network across an elevation gradient for habitat assessment: Instrumentation Science and Technology, v. 39, no. 3, p. 231-247, at http://dx.doi.org/10.1080/10739149.2011.564700.

Bater, C.W., Wulder, M.A., Coops, N.C., Nelson, R.F., Hilker, T., and Næsset, E., 2011, Stability of sample-based scanning-LiDAR-derived vegetation metrics for forest monitoring: IEEE Transactions on Geoscience and Remote Sensing, v. 49, no. 6 PART 2, p. 2385-2392, at http://dx.doi.org/10.1109/TGRS.2010.2099232.

Bater, C.W., Wulder, M.A., White, J.C., and Coops, N.C., 2010, Integration of LIDAR and digital aerial imagery for detailed estimates of lodgepole Pine (Pinus contorta) volume killed by mountain Pine Beetle (Dendroctonus ponderosae): Journal of Forestry, v. 108, no. 3, p. 111-119, at http://www.ingentaconnect.com/content/saf/jof/2010/00000108/00000003/art00006.

Baumann, M., Kuemmerle, T., Elbakidze, M., Ozdogan, M., Radeloff, V.C., Keuler, N.S., Prishchepov, A.V., Kruhlov, I., and Hostert, P., 2011, Patterns and drivers of post-socialist farmland abandonment in Western Ukraine: Land Use Policy, v. 28, no. 3, p. 552-562, at http://dx.doi.org/10.1016/j.landusepol.2010.11.003.

Becker-Reshef, I., Justice, C., Sullivan, M., Vermote, E., Tucker, C., Anyamba, A., Small, J., Pak, E., Masuoka, E., et al., 2010, Monitoring Global Croplands with Coarse Resolution Earth Observations—The Global Agriculture Monitoring (GLAM) Project: Remote Sensing, v. 2, no. 6, p. 1589-1609, at http://dx.doi.org/10.3390/rs2061589.

Becker-Reshef, I., Vermote, E., Lindeman, M., and Justice, C., 2010, A generalized regression-based model for forecasting winter wheat yields in Kansas and Ukraine using MODIS data: Remote Sensing of Environment, v. 114, no. 6, p. 1312-1323, at http://dx.doi.org/10.1016/j.rse.2010.01.010.

Belward, A., 2014, Running out of land—Alan Belward on the latest threat to life on Earth—A lack of space: Biologist, v. 61, no. 3, p. 28-31, at https://thebiologist.societyofbiology.org/biologist-archive.

Belward, A.S., and Skøien, J.O., 2015, Who launched what, when and why—Trends in global land-cover observation capacity from civilian Earth observation satellites: ISPRS Journal of Photogrammetry and Remote Sensing, v. 103, p. 115-128, at http://dx.doi.org/10.1016/j.isprsjprs.2014.03.009.

Belward, A.S., Stibig, H.J., Eva, H., Rembold, F., Bucha, T., Hartley, A., Beuchle, R., Khudhairy, D., Michielon, M., et al., 2007, Mapping severe damage to land cover following the 2004 Indian Ocean tsunami using moderate spatial resolution satellite imagery: International Journal of Remote Sensing, v. 28, no. 13-14, p. 2977-2994, at http://dx.doi.org/10.1080/01431160601091803.

Berthier, E., Scambos, T.A., and Shuman, C.A., 2012, Mass loss of Larsen B tributary glaciers (Antarctic Peninsula) unabated since 2002: Geophysical Research Letters, v. 39, no. 13, citation number L13501, at http://dx.doi.org/10.1029/2012GL051755.

Bertoldi, G., Albertson, J.D., Kustas, W.P., Li, F., and Anderson, M.C., 2007, On the opposing roles of air temperature and wind speed variability in flux estimation from remotely sensed land surface states: Water Resources Research, v. 43, no. 10, citation number W10433, at http://dx.doi.org/10.1029/2007WR005911.

Beuchle, R., Eva, H.D., Stibig, H.J., Bodart, C., Brink, A., Mayaux, P., Johansson, D., Achard, F., and Belward, A., 2011, A satellite data set for tropical forest area change assessment: International Journal of Remote Sensing, v. 32, no. 22, p. 7009-7031, at http://dx.doi.org/10.1080/01431161.2011.611186.

Biggs, T.W., Thenkabail, P.S., Gumma, M.K., Scott, C.A., Parthasaradhi, G.R., and Turral, H.N., 2006, Irrigated area mapping in heterogeneous landscapes with MODIS time series, ground truth and census data, Krishna Basin, India: International Journal of Remote Sensing, v. 27, no. 19, p. 4245-4266, at http://dx.doi.org/10.1080/01431160600851801.

Bindschadler, R., 2006, The environment and evolution of the West Antarctic ice sheet—Setting the stage: Philosophical Transactions of the Royal Society A—Mathematical, Physical and Engineering Sciences, v. 364, no. 1844, p. 1583-1605, at http://dx.doi.org/10.1098/rsta.2006.1790.

Bindschadler, R., 2006, Hitting the ice sheets where it hurts: Science, v. 311, no. 5768, p. 1720-1721, at http://dx.doi.org/10.1126/science.1125226.

Bindschadler, R., 2008, Ice on the edge: Natural History, v. 117, no. 9, p. 28-33, at http://digitallibrary.amnh.org/dspace/bitstream/handle/2246/6514/NH117n09.pdf?sequence=8.

Bindschadler, R., Choi, H., Wichlacz, A., Bingham, R., Bohlander, J., Brunt, K., Corr, H., Drews, R., Fricker, H., et al., 2011, Getting around Antarctica—New high-resolution mappings of the grounded and freely-floating boundaries of the Antarctic ice sheet created for the International Polar Year: Cryosphere, v. 5, no. 3, p. 569-588, at http://dx.doi.org/10.5194/tc-5-569-2011.

Bindschadler, R., Vaughan, D.G., and Vornberger, P., 2011, Variability of basal melt beneath the Pine Island Glacier ice shelf, West Antarctica: Journal of Glaciology, v. 57, no. 204, p. 581-595, at http://dx.doi.org/10.3189/002214311797409802.

Bindschadler, R., Vornberger, P., Fleming, A., Fox, A., Mullins, J., Binnie, D., Paulsen, S.J., Granneman, B., and Gorodetzky, D., 2008, The Landsat Image Mosaic of Antarctica: Remote Sensing of Environment, v. 112, no. 12, p. 4214-4226, at http://dx.doi.org/10.1016/j.rse.2008.07.006.

Bindschadler, R.A., and Choi, H., 2007, Increased water storage at ice-stream onsets—A critical mechanism?: Journal of Glaciology, v. 53, no. 181, p. 163-171, at http://dx.doi.org/10.3189/172756507782202793.

Bindschadler, R.A., Nowicki, S., Abe-Ouchi, A., Aschwanden, A., Choi, H., Fastook, J., Granzow, G., Greve, R., Gutowski, G., et al., 2013, Ice-sheet model sensitivities to environmental forcing and their use in projecting future sea level (the SeaRISE project): Journal of Glaciology, v. 59, no. 214, p. 195-224, at http://dx.doi.org/10.3189/2013JoG12J125.

Bindschadler, R.A., Scambos, T.A., Choi, H., and Haran, T.M., 2010, Ice sheet change detection by satellite image differencing: Remote Sensing of Environment, v. 114, no. 7, p. 1353-1362, at http://dx.doi.org/10.1016/j.rse.2010.01.014.

Biradar, C.M., Thenkabail, P.S., Islam, M.A., Anputhas, M., Tharme, R., Vithanage, J., Alankara, R., and Gunasinghe, S., 2007, Establishing the best spectral bands and timing of imagery for land use—Land cover (LULC) class separability using Landsat ETM+ and Terra MODIS data: Canadian Journal of Remote Sensing, v. 33, no. 5, p. 431-444, at http://dx.doi.org/10.5589/m07-040.

Biradar, C.M., Thenkabail, P.S., Noojipady, P., Li, Y., Dheeravath, V., Turral, H., Velpuri, M., Gumma, M.K., Gangalakunta, O.R.P., et al., 2009, A global map of rainfed cropland areas (GMRCA) at the end of last millennium using remote sensing: International Journal of Applied Earth Observation and Geoinformation, v. 11, no. 2, p. 114-129, at http://dx.doi.org/10.1016/j.jag.2008.11.002.

Biradar, C.M., Thenkabail, P.S., Platonov, A., Xiao, X., Geerken, R., Noojipady, P., Turral, H., and Vithanage, J., 2008, Water productivity mapping methods using remote sensing: Journal of Applied Remote Sensing, v. 2, no. 1, citation identifier 023544, at http://dx.doi.org/10.1117/1.3033753.

Biradar, C.M., Thenkabail, P.S., Turral, H., Noojipady, P., Li, Y.J., Velpuri, M., Dheeravath, V., Vithanage, J., Schull, M., et al., 2006, A Global map of rainfed cropland areas at the end of last millennium using remote sensing and geospatial techniques, *in* Li, D., and Xia, L., eds., Geoinformatics 2006—GNSS and Integrated Geospatial Applications, Wuhan, China, 28-29 October 2006, Proceedings of SPIE Vol. 6418: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 64181Q, at http://dx.doi/org/10.1117/12.713204.

Birdsey, R.A., Cook, R., Denning, S., Griffith, P., Law, B., Masek, J., Michalak, A., Ogle, S., Ojima, D., et al., 2007, Investigators share improved understanding of the North American carbon cycle: Eos, v. 88, no. 24, p. 255-255, at http://dx.doi.org/10.1029/2007EO240004.

Blackard, J.A., Finco, M.V., Helmer, E.H., Holden, G.R., Hoppus, M.L., Jacobs, D.M., Lister, A.J., Moisen, G.G., Nelson, M.D., et al., 2008, Mapping U.S. forest biomass using nationwide forest inventory data and moderate resolution information: Remote Sensing of Environment, v. 112, no. 4, p. 1658-1677, at http://dx.doi.org/10.1016/j.rse.2007.08.021.

Blevins, D.D., Brown, S.D., and Schott, J.R., 2006, First-principles based LIDAR simulation environment for scenes with participating mediums, *in* Kamerman, G.W., and Turner, M.D., eds., Laser Radar

Technology and Applications XI, Orlando, Fla., 12-20 April 2006, Proceedings of SPIE Vol. 6214: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 62140G, at http://dx.doi.org/10.1117/12.665958.

Blinn, C.E., Albaugh, T.J., Fox, T.R., Wynne, R.H., Stape, J.L., Rubilar, R.A., and Allen, H.L., 2012, A method for estimating deciduous competition in pine stands using Landsat: Southern Journal of Applied Forestry, v. 36, no. 2, p. 71-78, at http://dx.doi.org/10.5849/sjaf.10-034.

Blinn, C.E., Browder, J.O., Pedlowski, M.A., and Wynne, R.H., 2013, Rebuilding the Brazilian rainforest—Agroforestry strategies for secondary forest succession: Applied Geography, v. 43, p. 171-181, at http://dx.doi.org/10.1016/j.apgeog.2013.06.013.

Blonquist Jr, J.M., Allen, R.G., and Bugbee, B., 2010, An evaluation of the net radiation sub-model in the ASCE standardized reference evapotranspiration equation—Implications for evapotranspiration prediction: Agricultural Water Management, v. 97, no. 7, p. 1026-1038, at http://dx.doi.org/10.1016/j.agwat.2010.02.008.

Boisvenue, C., Smiley, B.P., White, J.C., Kurz, W.A., and Wulder, M.A., 2016, Integration of Landsat time series and field plots for forest productivity estimates in decision support models: Forest Ecology and Management, v. 376, p. 284-297, at http://dx.doi.org/10.1016/j.foreco.2016.06.022.

Bolton, D.K., Coops, N.C., and Wulder, M.A., 2015, Characterizing residual structure and forest recovery following high-severity fire in the western boreal of Canada using Landsat time-series and airborne lidar data: Remote Sensing of Environment, v. 163, p. 48-60, at http://dx.doi.org/10.1016/j.rse.2015.03.004.

Bolton, D.K., Coops, N.C., and Wulder, M.A., 2013, Investigating the agreement between global canopy height maps and airborne Lidar derived height estimates over Canada: Canadian Journal of Remote Sensing, v. 39, no. Suppl. 1, p. S139-S151, at http://dx.doi.org/10.5589/m13-036.

Bolton, D.K., Coops, N.C., and Wulder, M.A., 2013, Measuring forest structure along productivity gradients in the Canadian boreal with small-footprint Lidar: Environmental Monitoring and Assessment, v. 185, no. 8, p. 6617-6634, at http://dx.doi.org/10.1007/s10661-012-3051-9.

Bone, C., White, J.C., Wulder, M.A., Robertson, C., and Nelson, T.A., 2013, Impact of forest fragmentation on patterns of mountain pine beetle-caused tree mortality: Forests, v. 4, no. 2, p. 279-295, at http://dx.doi.org/10.3390/f4020279.

Bone, C., Wulder, M.A., White, J.C., Robertson, C., and Nelson, T.A., 2013, A GIS-based risk rating of forest insect outbreaks using aerial overview surveys and the local Moran's I statistic: Applied Geography, v. 40, p. 161-170, at http://dx.doi.org/10.1016/j.apgeog.2013.02.011.

Boonmee, M., Schott, J.R., and Messinger, D.W., 2006, Land surface temperature and emissivity retrieval from thermal infrared hyper spectral imagery, *in* Shen, S.S., and Lewis, P.E., eds., Algorithms and Technologies for Multispectral, Hyperspectral, and Ultraspectral Imagery XII, Orlando, Fla., 17-20 April 2006, Proceedings of SPIE Vol. 6233: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 62331V, at http://dx.doi.org/10.1117/12.665899.

Boschetti, L., Roy, D., Barbosa, P., Boca, R., and Justice, C., 2008, A MODIS assessment of the summer 2007 extent burned in Greece: International Journal of Remote Sensing, v. 29, no. 8, p. 2433-2436, at http://dx.doi.org/10.1080/01431160701874561.

Boschetti, L., and Roy, D.P., 2008, Defining a fire year for reporting and analysis of global interannual fire variability: Journal of Geophysical Research G—Biogeosciences, v. 113, no. 3, citation number G03020, at http://dx.doi.org/10.1029/2008JG000686.

Boschetti, L., and Roy, D.P., 2009, Strategies for the fusion of satellite fire radiative power with burned area data for fire radiative energy derivation: Journal of Geophysical Research D—Atmospheres, v. 114, no. 20, citation number D20302, at http://dx.doi.org/10.1029/2008JDO11645.

Boschetti, L., Roy, D.P., and Justice, C.O., 2008, Using NASA's World Wind virtual globe for interactive internet visualization of the global MODIS burned area product: International Journal of Remote Sensing, v. 29, no. 11, p. 3067-3072, at http://dx.doi.org/10.1080/01431160701733023.

Boschetti, L., Roy, D.P., Justice, C.O., and Giglio, L., 2010, Global assessment of the temporal reporting accuracy and precision of the MODIS burned area product: International Journal of Wildland Fire, v. 19, no. 6, p. 705-709, at http://dx.doi.org/10.1071/WF09138.

Boschetti, L., Roy, D.P., Justice, C.O., and Humber, M.L., 2015, MODIS-Landsat fusion for large area 30m burned area mapping: Remote Sensing of Environment, v. 161, p. 27-42, at http://dx.doi.org/10.1016/j.rse.2015.01.022.

Bounoua, L., Masek, J., and Tourre, Y.M., 2006, Sensitivity of surface climate to land surface parameters—A case study using the simple biosphere model SiB2: Journal of Geophysical Research D—Atmospheres, v. 111, no. 22, citation number D22S09, at http://dx.doi.org/10.1029/2006JD007309.

Bounoua, L., Safia, A., Masek, J., Peters-Lidard, C., and Imhoff, M.L., 2009, Impact of urban growth on surface climate—A case study in Oran, Algeria: Journal of Applied Meteorology and Climatology, v. 48, no. 2, p. 217-231, at http://dx.doi.org/10.1175/2008JAMC2044.1.

Bourbonnais, M.L., Nelson, T.A., and Wulder, M.A., 2014, Geographic analysis of the impacts of mountain pine beetle infestation on forest fire ignition: Canadian Geographer, v. 58, no. 2, p. 188-202, at http://dx.doi.org/10.1111/j.1541-0064.2013.12057.x.

Braaten, J.D., Cohen, W.B., and Yang, Z., 2015, Automated cloud and cloud shadow identification in Landsat MSS imagery for temperate ecosystems: Remote Sensing of Environment, v. 169, p. 128-138, at http://dx.doi.org/10.1016/j.rse.2015.08.006.

Brady, M.A., De Groot, W.J., Goldammer, J.G., Keenan, T., Lynham, T.J., Justice, C.O., Csiszar, I.A., and O'Loughlin, K., 2007, Developing a global early warning system for wildland fire, *in* Siva Kumar, M.V.K., and Motha, R.P., eds., International workshop on agrometeorological risk management—challenges and opportunities: New York, N.Y., Springer, p. 355-366, at http://dx.doi.org/10.1007/978-3-540-72746-0_20.

Brandeis, T.J., Helmer, E.H., Marcano-Vega, H., and Lugo, A.E., 2009, Climate shapes the novel plant communities that form after deforestation in Puerto Rico and the U.S. Virgin Islands: Forest Ecology and Management, v. 258, no. 7, p. 1704-1718, at http://dx.doi.org/10.1016/j.foreco.2009.07.030.

Breon, F., Vermote, E., Murphy, E., and Franch, B., 2015, Measuring the directional variations of land surface reflectance from MODIS: IEEE Transactions on Geoscience and Remote Sensing, v. 53, no. 8, p. 4638-4649, at http://dx.doi.org/10.1109/TGRS.2015.2405344.

Bréon, F.M., and Vermote, E., 2012, Correction of MODIS surface reflectance time series for BRDF effects: Remote Sensing of Environment, v. 125, p. 1-9, at http://dx.doi.org/10.1016/j.rse.2012.06.025.

Bright, B.C., Hudak, A.T., Kennedy, R.E., and Meddens, A.J.H., 2014, Landsat time series and lidar as predictors of live and dead basal area across five bark beetle-affected forests: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 7, no. 8, p. 3440-3452, at http://dx.doi.org/10.1109/JSTARS.2014.2346955.

Brooks, A.P., Spencer, J., Shellberg, J.G., Knight, J., and Lymburner, L., 2008, Using remote sensing to quantify sediment budget components in a large tropical river—Mitchell River, Gulf of Carpentaria, *in* Schmidt, J., ed., Symposium of the International Commission on Continental Erosion, Christchurch, New Zealand, 1-5 December 2008, Sediment dynamics in changing environments, Proceedings: Wallingford, UK, IAHS Press, p. 225-236.

Brooks, E.B., Coulston, J.W., Wynne, R.H., and Thomas, V.A., 2016, Improving the precision of dynamic forest parameter estimates using Landsat: Remote Sensing of Environment, v. 179, p. 162-169, at http://dx.doi.org/10.1016/j.rse.2016.03.017.

Brooks, E.B., Thomas, V.A., Wynne, R.H., and Coulston, J.W., 2012, Fitting the multitemporal curve—A fourier series approach to the missing data problem in remote sensing analysis: IEEE Transactions on Geoscience and Remote Sensing, v. 50, no. 9, p. 3340-3353, at http://dx.doi.org/10.1109/TGRS.2012.2183137.

Brooks, E.B., Wynne, R.H., Thomas, V.A., Blinn, C.E., and Coulston, J.W., 2013, On-the-fly massively multitemporal change detection using statistical quality control charts and Landsat data: IEEE Transactions on Geoscience and Remote Sensing, v. 52, no. 6, p. 3316-3332, at http://dx.doi.org/10.1109/TGRS.2013.2272545.

Browder, J.O., Pedlowski, M.A., Walker, R., Wynne, R.H., Summers, P.M., Abad, A., Becerra-Cordoba, N., and Mil-Homens, J., 2008, Revisiting Theories of Frontier Expansion in the Brazilian Amazon—A Survey of the Colonist Farming Population in Rondônia's Post-Frontier, 1992-2002: World Development, v. 36, no. 8, p. 1469-1492, at http://dx.doi.org/10.1016/j.worlddev.2007.08.008.

Brunsell, N.A., and Anderson, M.C., 2011, Characterizing the multi-scale spatial structure of remotely sensed evapotranspiration with information theory: Biogeosciences, v. 8, no. 8, p. 2269-2280, at http://dx.doi.org/10.5194/bg-8-2269-2011.

Brunsell, N.A., Mechem, D.B., and Anderson, M.C., 2011, Surface heterogeneity impacts on boundary layer dynamics via energy balance partitioning: Atmospheric Chemistry and Physics, v. 11, no. 7, p. 3403-3416, at http://dx.doi.org/10.5194/acp-11-3403-2011.

Brunt, K.M., Fricker, H.A., Padman, L., Scambos, T.A., and O'Neel, S., 2010, Mapping the grounding zone of the Ross Ice Shelf, Antarctica, using ICESat laser altimetry: Annals of Glaciology, v. 51, no. 55, p. 71-79, at http://dx.doi.org/10.3189/172756410791392790.

Budreski, K.A., Wynne, R.H., Browder, J.O., and Campbell, J.B., 2007, Comparison of segment and pixel-based non-parametric land cover classification in the Brazilian Amazon using multitemporal Landsat TM/ETM+ imagery: Photogrammetric Engineering and Remote Sensing, v. 73, no. 7, p. 813-827, at http://dx.doi.org/10.14358/PERS.73.7.813.

Burakowski, E.A., Ollinger, S.V., Lepine, L., Schaaf, C.B., Wang, Z., Dibb, J.E., Hollinger, D.Y., Kim, J., Erb, A., et al., 2015, Spatial scaling of reflectance and surface albedo over a mixed-use, temperate forest landscape during snow-covered periods: Remote Sensing of Environment, v. 158, p. 465-477, at http://dx.doi.org/10.1016/j.rse.2014.11.023.

Burkhalter, J.P., Martin, T.C., Allen, R.G., Kjaersgaard, J., Wilson, E., Alvarado, R., and Polly, J.S., 2013, Estimating crop water use via remote sensing techniques vs. conventional methods in the South

Platte River Basin, Colorado: Journal of the American Water Resources Association, v. 49, no. 3, p. 498-517, at http://dx.doi.org/10.1111/jawr.12051.

Burnett, B., Allen, R.G., Robison, C.W., Tasumi, M., and Lorite, I., 2008, Estimating the soil surface evaporation and transpiration components from satellite images in the absence of a thermal band, *in* Babcock, R.W., and Walton, R., eds., World Environmental and Water Resources Congress Honolulu, Hawaii, 12-16 May 2008, Proceedings: Reston, Va., American Society of Civil Engineers, p. 1-18, at http://dx.doi.org/10.1061/40976(316)86.

Bwangoy, J.R.B., Hansen, M.C., Roy, D.P., Grandi, G.D., and Justice, C.O., 2010, Wetland mapping in the Congo Basin using optical and radar remotely sensed data and derived topographical indices: Remote Sensing of Environment, v. 114, no. 1, p. 73-86, at http://dx.doi.org/10.1016/j.rse.2009.08.004.

Cai, X., Thenkabail, P.S., Biradar, C.M., Platonov, A., Gumma, M., Dheeravath, V., Cohen, Y., Goldlshleger, N., Ben Dor, E., et al., 2009, Water productivity mapping using remote sensing data of various resolutions to support "more crop per drop": Journal of Applied Remote Sensing, v. 3, no. 1, citation identifier 033557, at http://dx.doi.org/10.1117/1.3257643.

Cai, X.L., Thenkabail, P.S., and Platonov, A., 2008, Benchmarking cotton water use and productivity using spectral indices, *in* Asian Conference on Remote Sensing, 29th, Colombo, Sri Lanka, 10-14 November 2008, Proceedings: Red Hook, N.Y., Curran, p. 17-23.

Cammalleri, C., Anderson, M.C., Ciraolo, G., Durso, G., Kustas, W.P., La Loggia, G., and Minacapilli, M., 2010, The impact of in-canopy wind profile formulations on heat flux estimation in an open orchard using the remote sensing-based two-source model: Hydrology and Earth System Sciences, v. 14, no. 12, p. 2643-2659, at http://dx.doi.org/10.5194/hess-14-2643-2010.

Cammalleri, C., Anderson, M.C., Ciraolo, G., D'Urso, G., Kustas, W.P., La Loggia, G., and Minacapilli, M., 2012, Applications of a remote sensing-based two-source energy balance algorithm for mapping surface fluxes without in situ air temperature observations: Remote Sensing of Environment, v. 124, p. 502-515, at http://dx.doi.org/10.1016/j.rse.2012.06.009.

Cammalleri, C., Anderson, M.C., Gao, F., Hain, C.R., and Kustas, W.P., 2013, A data fusion approach for mapping daily evapotranspiration at field scale: Water Resources Research, v. 49, no. 8, p. 4672-4686, at http://dx.doi.org/10.1002/wrcr.20349.

Cammalleri, C., Anderson, M.C., Gao, F., Hain, C.R., and Kustas, W.P., 2014, Mapping daily evapotranspiration at field scales over rainfed and irrigated agricultural areas using remote sensing data fusion: Agricultural and Forest Meteorology, v. 186, p. 1-11, at http://dx.doi.org/10.1016/j.agrformet.2013.11.001.

Cammalleri, C., Anderson, M.C., and Kustas, W.P., 2014, Upscaling of evapotranspiration fluxes from instantaneous to daytime scales for thermal remote sensing applications: Hydrology and Earth System Sciences, v. 18, no. 5, p. 1885-1894, at http://dx.doi.org/10.5194/hess-18-1885-2014.

Campagnolo, M.L., Sun, Q., Liu, Y., Schaaf, C., Wang, Z., and Román, M.O., 2016, Estimating the effective spatial resolution of the operational BRDF, albedo, and nadir reflectance products from MODIS and VIIRS: Remote Sensing of Environment, v. 175, p. 52-64, at http://dx.doi.org/10.1016/j.rse.2015.12.033.

Campbell, J.L., Kennedy, R.E., Cohen, W.B., and Miller, R.F., 2012, Assessing the carbon consequences of western juniper (Juniperus occidentalis) encroachment across Oregon, USA: Rangeland Ecology and Management, v. 65, no. 3, p. 223-231, at http://dx.doi.org/10.2111/REM-D-11-00012.1.

Cao, C., Vermote, E., and Xiong, X., 2009, Using AVHRR lunar observations for NDVI long-term climate change detection: Journal of Geophysical Research D—Atmospheres, v. 114, no. 20, citation number D20105, at http://dx.doi.org/10.1029/2009JD012179.

Cao, L., Bala, G., Caldeira, K., Nemani, R., and Ban-Weiss, G., 2009, Climate response to physiological forcing of carbon dioxide simulated by the coupled Community Atmosphere Model (CAM3.1) and Community Land Model (CLM3.0): Geophysical Research Letters, v. 36, no. 10, citation number L10402, at http://dx.doi.org/10.1029/2009GL037724.

Cao, L., Bala, G., Caldeira, K., Nemani, R., and Ban-Weiss, G., 2010, Importance of carbon dioxide physiological forcing to future climate change: Proceedings of the National Academy of Sciences of the United States of America, v. 107, no. 21, p. 9513-9518, at http://dx.doi.org/10.1073/pnas.0913000107.

Cape, M.R., Vernet, M., Skvarca, P., Marinsek, S., Scambos, T., and Domack, E., 2015, Foehn winds link climate-driven warming to ice shelf evolution in Antarctica: Journal of Geophysical Research—Atmospheres, v. 120, no. 21, p. 11,037-11,057, at http://dx.doi.org/10.1002/2015JD023465.

Cardille, J.A., White, J.C., Wulder, M.A., and Holland, T., 2012, Representative landscapes in the forested area of Canada: Environmental Management, v. 49, no. 1, p. 163-173, at http://dx.doi.org/10.1007/s00267-011-9785-2.

Carmona, P.L., Moreno, J.E., Pla, F., and Schaaf, C.B., 2009, Affine compensation of illumination in hyperspectral remote sensing images, *in* IEEE Geoscience and Remote Sensing Symposium, University of Cape Town, South Africa, 12-17 July 2009, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. II266-II269, at http://dx.doi.org/10.1109/IGARSS.2009.5418059.

Carrasco-Benavides, M., Ortega-Farías, S., Lagos, L.O., Kleissl, J., Morales, L., Poblete-Echeverría, C., and Allen, R.G., 2012, Crop coefficients and actual evapotranspiration of a drip-irrigated Merlot vineyard using multispectral satellite images: Irrigation Science, v. 30, no. 6, p. 485-497, at http://dx.doi.org/10.1007/s00271-012-0379-4.

Carrasco-Benavides, M., Ortega-Farías, S., Lagos, L.O., Kleissl, J., Morales-Salinas, L., and Kilic, A., 2014, Parameterization of the satellite-based model (METRIC) for the estimation of instantaneous surface energy balance components over a drip-irrigated vineyard: Remote Sensing, v. 6, no. 11, p. 11342-11371, at http://dx.doi.org/10.3390/rs61111342.

Carroll, R.W., Pohll, G.M., Morton, C.G., and Huntington, J.L., 2015, Calibrating a basin-scale groundwater model to remotely sensed estimates of groundwater evapotranspiration: Journal of the American Water Resources Association, v. 51, no. 4, p. 1114-1127, at http://dx.doi.org/10.1111/jawr.12285.

Catania, G., Hulbe, C., Conway, H., Scambos, T.A., and Raymond, C.F., 2012, Variability in the mass flux of the Ross ice streams, West Antarctica, over the last millennium: Journal of Glaciology, v. 58, no. 210, p. 741-752, at http://dx.doi.org/10.3189/2012JoG11J219.

Catania, G.A., Conway, H., Raymond, C.F., and Scambos, T.A., 2006, Evidence for floatation or near floatation in the mouth of Kamb Ice Stream, West Antarctica, prior to stagnation: Journal of Geophysical Research F—Earth Surface, v. 111, no. F1, citation number F01005, at http://dx.doi.org/10.1029/2005JF000355.

Catania, G.A., Scambos, T.A., Conway, H., and Raymond, C.F., 2006, Sequential stagnation of Kamb Ice Stream, West Antarctica: Geophysical Research Letters, v. 33, no. 14, citation number L14502, at http://dx.doi.org/10.1029/2006GL026430.

Cawse-Nicholson, K., Van Aardt, J., Hagstrom, S., Romanczyk, P., Schaaf, C., Strahler, A., Li, Z., and Krause, K., 2014, Improving waveform lidar processing toward robust deconvolution of signals for improved structural assessments, *in* Turner, M.D., Kamerman, G.W., Thomas, L.M.W., and Spillar, E.J., eds., Laser Radar Technology and Applications XIX and Atmospheric Propagation XI, Baltimore, Md., 5 May 2014, Proceedings of SPIE Vol. 9080: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 90800I, at http://dx.doi.org/10.1117/12.2050577.

Cescatti, A., Marcolla, B., Santhana Vannan, S.K., Pan, J.Y., Román, M.O., Yang, X., Ciais, P., Cook, R.B., Law, B.E., et al., 2012, Intercomparison of MODIS albedo retrievals and in situ measurements across the global FLUXNET network: Remote Sensing of Environment, v. 121, p. 323-334, at http://dx.doi.org/10.1016/j.rse.2012.02.019.

Champagne, C., McNairn, H., Shang, J., and Johnson, D.M., 2007, Evaluation of Resourcesat-1 AWiFS data for producing an agricultural crop inventory for Canada, *in* Our common borders—Safety, security, and the environment through remote sensing, Canadian Symposium on Remote Sensing, 28th and ASPRS Fall Specialty Conference, Ottawa, Canada, 28 October-1 November 2007, Proceedings: Bethesda, Md., American Society for Photogrammetry and Remote Sensing p. 11-18, at http://www.asprs.org/a/conference-archive/ottawa07/ottawa_proceedings/2.pdf.

Chander, G., Helder, D.L., Aaron, D., Mishra, N., and Shrestha, A.K., 2013, Assessment of spectral, misregistration, and spatial uncertainties inherent in the cross-calibration study: IEEE Transactions on Geoscience and Remote Sensing, v. 51, no. 3, p. 1282-1296, at http://dx.doi.org/10.1109/TGRS.2012.2228008.

Chander, G., Helder, D.L., Malla, R., Micijevic, E., and Mettler, C.J., 2007, Consistency of L4 TM absolute calibration with respect to the L5 TM sensor based on near-simultaneous image acquisition, *in* Butler, J.J., and Xiong, J., eds., Earth Observing Systems XII, San Diego, Calif., 26–28 August 2007, Proceedings of SPIE Vol. 6677: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 66770F, at http://dx.doi.org/10.1117/12.734208.

Chander, G., Markham, B.L., and Helder, D.L., 2009, Summary of current radiometric calibration coefficients for Landsat MSS, TM, ETM+, and EO-1 ALI sensors: Remote Sensing of Environment, v. 113, no. 5, p. 893-903, at http://dx.doi.org/10.1016/j.rse.2009.01.007.

Chander, G., Mishra, N., Helder, D.L., Aaron, D., Choi, T., Angal, A., and Xiong, X., 2010, Use of EO-1 Hyperion data to calculate spectral band adjustment factors (SBAF) between the L7 ETM+ and Terra MODIS sensors, *in* International Geoscience and Remote Sensing Symposium, Honolulu, Hawaii, 25-30 July 2010, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 1667-1670, at http://dx.doi/org/10.1109/IGARSS.2010.5652746.

Chander, G., Mishra, N., Helder, D.L., Aaron, D.B., Angal, A., Choi, T., Xiong, X., and Doelling, D.R., 2013, Applications of spectral band adjustment factors (SBAF) for cross-calibration: IEEE Transactions on Geoscience and Remote Sensing, v. 51, no. 3, p. 1267-1281, at http://dx.doi.org/10.1109/TGRS.2012.2228007.

Chang, J., Clay, D.E., Leigh, L., Aaron, D., Dalsted, K., and Volz, M., 2008, Evaluating modified atmospheric correction methods for Landsat imagery—Image-based and model-based

calibration methods: Communications in Soil Science and Plant Analysis, v. 39, no. 9-10, p. 1532-1545, at http://dx.doi.org/10.1080/00103620802006669.

Chaowasku, T., Johnson, D.M., van der Ham, R.W.J.M., and Chatrou, L.W., 2015, Huberantha, a replacement name for Hubera (Annonaceae: Malmeoideae: Miliuseae): Kew Bulletin, v. 70, no. 2, at http://dx.doi.org/10.1007/s12225-015-9571-z.

Chavula, G., Brezonik, P., Thenkabail, P., Johnson, T., and Bauer, M., 2009, Estimating chlorophyll concentration in Lake Malawi from MODIS satellite imagery: Physics and Chemistry of the Earth, v. 34, no. 13-16, p. 755-760, at http://dx.doi.org/10.1016/j.pce.2009.07.015.

Chavula, G., Brezonik, P., Thenkabail, P., Johnson, T., and Bauer, M., 2009, Estimating the surface temperature of Lake Malawi using AVHRR and MODIS satellite imagery: Physics and Chemistry of the Earth, v. 34, no. 13-16, p. 749-754, at http://dx.doi.org/10.1016/j.pce.2009.08.001.

Chen, G., Hay, G.J., Carvalho, L.M.T., and Wulder, M.A., 2012, Object-based change detection: International Journal of Remote Sensing, v. 33, no. 14, p. 4434-4457, at http://dx.doi.org/10.1080/01431161.2011.648285.

Chen, G., Wulder, M.A., White, J.C., Hilker, T., and Coops, N.C., 2012, Lidar calibration and validation for geometric-optical modeling with Landsat imagery: Remote Sensing of Environment, v. 124, p. 384-393, at http://dx.doi.org/10.1016/j.rse.2012.05.026.

Chen, J., Zhu, X., Vogelmann, J.E., Gao, F., and Jin, S., 2011, A simple and effective method for filling gaps in Landsat ETM+ SLC-off images: Remote Sensing of Environment, v. 115, no. 4, p. 1053-1064, at http://dx.doi.org/10.1016/j.rse.2010.12.010.

Chen, X., Liu, S., Zhu, Z., Vogelmann, J., Li, Z., and Ohlen, D., 2011, Estimating aboveground forest biomass carbon and fire consumption in the U.S. Utah High Plateaus using data from the Forest Inventory and Analysis program, Landsat, and LANDFIRE: Ecological Indicators, v. 11, no. 1, p. 140-148, at http://dx.doi.org/10.1016/j.ecolind.2009.03.013.

Chen, X., Vogelmann, J.E., Chander, G., Ji, L., Tolk, B., Huang, C., and Rollins, M., 2013, Cross-sensor comparisons between Landsat 5 TM and IRS-P6 AWiFS and disturbance detection using integrated Landsat and AWiFS time-series images: International Journal of Remote Sensing, v. 34, no. 7, p. 2432-2453, at http://dx.doi.org/10.1080/01431161.2012.743690.

Chen, X., Vogelmann, J.E., Rollins, M., Ohlen, D., Key, C.H., Yang, L., Huang, C., and Shi, H., 2011, Detecting post-fire burn severity and vegetation recovery using multitemporal remote sensing spectral indices and field-collected composite burn index data in a ponderosa pine forest: International Journal of Remote Sensing, v. 32, no. 23, p. 7905-7927, at http://dx.doi.org/10.1080/01431161.2010.524678.

Choi, M., Jacobs, J.M., Anderson, M.C., and Bosch, D.D., 2013, Evaluation of drought indices via remotely sensed data with hydrological variables: Journal of Hydrology, v. 476, p. 265-273, at http://dx.doi.org/10.1016/j.jhydrol.2012.10.042.

Choi, M., Kustas, W.P., Anderson, M.C., Allen, R.G., Li, F., and Kjaersgaard, J.H., 2009, An intercomparison of three remote sensing-based surface energy balance algorithms over a corn and soybean production region (Iowa, U.S.) during SMACEX: Agricultural and Forest Meteorology, v. 149, no. 12, p. 2082-2097, at http://dx.doi.org/10.1016/j.agrformet.2009.07.002.

Choi, S., Ni, X., Shi, Y., Ganguly, S., Zhang, G., Duong, H.V., Lefsky, M.A., Simard, M., Saatchi, S.S., et al., 2013, Allometric scaling and resource limitations model of tree heights—Part 2. Site based

testing of the model: Remote Sensing, v. 5, no. 1, p. 202-223, at http://dx.doi.org/10.3390/rs5010202.

Chopping, M., North, M., Chen, J., Schaaf, C.B., Blair, J.B., Martonchik, J.V., and Bull, M.A., 2012, Forest canopy cover and height from MISR in topographically complex southwestern US landscapes assessed with high quality reference data: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 5, no. 1, p. 44-58, at http://dx.doi.org/10.1109/JSTARS.2012.2184270.

Chopping, M., Schaaf, C.B., Zhao, F., Wang, Z., Nolin, A.W., Moisen, G.G., Martonchik, J.V., and Bull, M., 2011, Forest structure and aboveground biomass in the southwestern United States from MODIS and MISR: Remote Sensing of Environment, v. 115, no. 11, p. 2943-2953, at http://dx.doi.org/10.1016/j.rse.2010.08.031.

Christ, A.J., Talaia-Murray, M., Elking, N., Domack, E.W., Leventer, A., Lavoie, C., Brachfeld, S., Yoo, K.C., Gilbert, R., et al., 2015, Late Holocene glacial advance and ice shelf growth in Barilari Bay, Graham Land, West Antarctic Peninsula: Bulletin of the Geological Society of America, v. 127, no. 1-2, p. 297-315, at http://dx.doi.org/10.1130/B31035.1.

Chubey, M.S., Franklin, S.E., and Wulder, M.A., 2006, Object-based analysis of Ikonos-2 imagery for extraction of forest inventory parameters: Photogrammetric Engineering and Remote Sensing, v. 72, no. 4, p. 383-394, at http://dx.doi.org/10.14358/PERS.72.4.383.

Chuvieco, E., Giglio, L., and Justice, C., 2008, Global characterization of fire activity—Toward defining fire regimes from Earth observation data: Global Change Biology, v. 14, no. 7, p. 1488-1502, at http://dx.doi.org/10.1111/j.1365-2486.2008.01585.x.

Chuvieco, E., and Justice, C., 2008, NASA earth observation satellite missions for global change research, *in* Chuvieco, E., ed., Earth observation of global change—the role of satellite remote sensing in monitoring the global environment: Dordrecht, Netherlands, Springer, p. 23-47, at http://dx.doi.org/10.1007/978-1-4020-6358-9_2.

Chuvieco, E., and Justice, C., 2010, Relations between human factors and global fire activity, *in* Chuvieco, E., Li, J., and Yang, X., eds., Advances in earth observation of global change: Dordrecht, Netherlands, Springer, p. 187-199, at http://dx.doi.org/10.1007/978-90-481-9085-0_14.

Claverie, M., Matthews, J.L., Vermote, E.F., and Justice, C.O., 2016, A 30+ year AVHRR LAI and FAPAR climate data record—Algorithm description and validation: Remote Sensing, v. 8, no. 3, at http://dx.doi.org/10.3390/rs8030263.

Claverie, M., Vermote, E., Franch, B., He, T., Hagolle, O., Kadiri, M., and Masek, J., 2015, Evaluation of medium spatial resolution BRDF-adjustment techniques using multi-angular SPOT4 (Take5) acquisitions: Remote Sensing, v. 7, no. 9, p. 12057-12075, at http://dx.doi.org/10.3390/rs70912057.

Claverie, M., Vermote, E.F., Franch, B., and Masek, J.G., 2015, Evaluation of the Landsat-5 TM and Landsat-7 ETM+ surface reflectance products: Remote Sensing of Environment, v. 169, p. 390-403, at http://dx.doi.org/10.1016/j.rse.2015.08.030.

Claverie, M., Vermote, E.F., Weiss, M., Baret, F., Hagolle, O., and Demarez, V., 2013, Validation of coarse spatial resolution LAI and FAPAR time series over cropland in southwest France: Remote Sensing of Environment, v. 139, p. 216-230, at http://dx.doi.org/10.1016/j.rse.2013.07.027.

Clements, J., Doody, C., Schott, J., and Walli, K., 2010, The advanced analyst exploitation environment, *in* Imaging and Applied Optics Congress, New York, N.Y., 7-8 June 2010, OSA Technical Digest:

Washington, D.C., Optical Society of America, paper OTuB5, at http://dx.doi.org/10.1364/ORSE.2010.OTuB5.

Clemmens, A.J., Allen, R.G., and Burt, C.M., 2008, Technical concepts related to conservation of irrigation and rainwater in agricultural systems: Water Resources Research, v. 44, no. 7, citation number W00E03, at http://dx.doi.org/10.1029/2007WR006095.

Coggins, S., Coops, N.C., and Wulder, M.A., 2008, Initialization of an insect infestation spread model using tree structure and spatial characteristics derived from high spatial resolution digital aerial imagery: Canadian Journal of Remote Sensing, v. 34, no. 6, p. 485-502, at http://dx.doi.org/10.5589/m08-073.

Coggins, S.B., Coops, N.C., Hilker, T., and Wulder, M.A., 2012, Augmenting forest inventory attributes with geometric optical modelling in support of regional susceptibility assessments to bark beetle infestations: International Journal of Applied Earth Observation and Geoinformation, v. 21, no. 1, p. 444-452, at http://dx.doi.org/10.1016/j.jag.2012.06.007.

Coggins, S.B., Coops, N.C., and Wulder, M.A., 2011, Estimates of bark beetle infestation expansion factors with adaptive cluster sampling: International Journal of Pest Management, v. 57, no. 1, p. 11-21, at http://dx.doi.org/10.1080/09670874.2010.505667.

Coggins, S.B., Coops, N.C., and Wulder, M.A., 2010, Improvement of low level bark beetle damage estimates with adaptive cluster sampling: Silva Fennica, v. 44, no. 2, p. 289-301, at http://dx.doi.org/10.14214/sf.456.

Coggins, S.B., Coops, N.C., Wulder, M.A., Bater, C.W., and Ortlepp, S.M., 2011, Comparing the impacts of mitigation and non-mitigation on mountain pine beetle populations: Journal of Environmental Management, v. 92, no. 1, p. 112-120, at http://dx.doi.org/10.1016/j.jenvman.2010.08.016.

Coggins, S.B., Wulder, M.A., Coops, N.C., and White, J.C., 2008, Linking survey detection accuracy with ability to mitigate populations of mountain pine beetle: Forestry Chronicle, v. 84, no. 6, p. 900-909, at http://dx.doi.org/10.5558/tfc84900-6.

Cohen, W.B., Maiersperger, T.K., Turner, D.P., Ritts, W.D., Pflugmacher, D., Kennedy, R.E., Kirschbaum, A., Running, S.W., Costa, M., et al., 2006, MODIS land cover and LAI collection 4 product quality across nine sites in the western hemisphere: IEEE Transactions on Geoscience and Remote Sensing, v. 44, no. 7, p. 1843-1857, at http://dx.doi.org/10.1109/TGRS.2006.876026.

Cohen, W.B., Yang, Z., and Kennedy, R., 2010, Detecting trends in forest disturbance and recovery using yearly Landsat time series—2. TimeSync - Tools for calibration and validation: Remote Sensing of Environment, v. 114, no. 12, p. 2911-2924, at http://dx.doi.org/10.1016/j.rse.2010.07.010.

Cohen, W.B., Yang, Z., Stehman, S.V., Schroeder, T.A., Bell, D.M., Masek, J.G., Huang, C., and Meigs, G.W., 2016, Forest disturbance across the conterminous United States from 1985-2012—The emerging dominance of forest decline: Forest Ecology and Management, v. 360, p. 242-252, at http://dx.doi.org/10.1016/j.foreco.2015.10.042.

Coish, R., Kim, J., Morris, N., and Johnson, D., 2012, Late stage rifting of the Laurentian continent—Evidence from the geochemistry of greenstone and amphibolite in the central Vermont Appalachians: Canadian Journal of Earth Sciences, v. 49, no. 1, p. 43-58, at http://dx.doi.org/10.1139/E11-013.

Colaizzi, P.D., Agam, N., Tolk, J.A., Evett, S.R., Howell, T.A., Gowda, P.H., O'Shaughnessy, S.A., Kustas, W.P., and Anderson, M.C., 2014, Two-source energy balance model to calculate E, T, and ET—

comparison of Priestley-Taylor and Penman-Monteith formulations and two time scaling methods: Transactions of the ASABE, v. 57, no. 2, p. 479-498, at http://dx.doi.org/10.13031/trans.57.10423.

Colaizzi, P.D., Agam, N., Tolk, J.A., Evett, S.R., Howell, T.A., Sr., O'Shaughnessy, S.A., Gowda, P.H., Kustas, W.P., and Anderson, M.C., 2016, Advances in a two-source energy balance model—Partitioning of evaporation and transpiration for cotton: Transactions of the ASABE, v. 59, no. 1, p. 181-197, at http://dx.doi.org/10.13031/trans.59.11215.

Colaizzi, P.D., Evett, S.R., Howell, T.A., Gowda, P.H., O'Shaughnessy, S.A., Tolk, J.A., Kustas, W.P., and Anderson, M.C., 2012, Two-source energy balance model—Refinements and lysimeter tests in the southern high plains: Transactions of the ASABE, v. 55, no. 2, p. 551-562, at http://dx.doi.org/10.13031/2013.41385.

Colaizzi, P.D., Evett, S.R., Howell, T.A., Li, F., Kustas, W.P., and Anderson, M.C., 2012, Radiation model for row crops—I. Geometric view factors and parameter optimization: Agronomy Journal, v. 104, no. 2, p. 225-240, at http://dx.doi.org/10.2134/agronj2011.0082.

Colaizzi, P.D., Kustas, W.P., Anderson, M.C., Agam, N., Tolk, J.A., Evett, S.R., Howell, T.A., Gowda, P.H., and O'Shaughnessy, S.A., 2012, Two-source energy balance model estimates of evapotranspiration using component and composite surface temperatures: Advances in Water Resources, v. 50, p. 134-151, at http://dx.doi.org/10.1016/j.advwatres.2012.06.004.

Colaizzi, P.D., O'Shaughnessy, S.A., Gowda, P.H., Evett, S.R., Howell, T.A., Kustas, W.P., and Anderson, M.C., 2010, Radiometer footprint model to estimate sunlit and shaded components for row crops: Agronomy Journal, v. 102, no. 3, p. 942-955, at http://dx.doi.org/10.2134/agronj2009.0393.

Concha, J.A., and Schott, J.R., 2014, In-water component retrieval over Case 2 water using Landsat 8—Initial results, *in* Energy and our changing planet, International Geoscience and Remote Sensing Symposium (IGARSS), Quebec City, Canada, 13-18 July 2014, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 4458-4461, at http://dx.doi.org/10.1109/IGARSS.2014.6947481.

Concha, J.A., and Schott, J.R., 2014, A model-based ELM for atmospheric correction over Case 2 water with Landsat 8, *in* Hou, W.W., and Arnone, R.A., eds., Ocean sensing and monitoring VI, Baltimore, Md., 5 May 2014, Proceedings of SPIE Vol. 9111: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), at http://dx.doi.org/10.1117/12.2050589.

Convey, P., Bindschadler, R., Di Prisco, G., Fahrbach, E., Gutt, J., Hodgson, D.A., Mayewski, P.A., Summerhayes, C.P., and Turner, J., 2009, Antarctic climate change and the environment: Antarctic Science, v. 21, no. 6, p. 541-563, at http://dx.doi.org/10.1017/S0954102009990642.

Cook, B.D., Corp, L.A., Nelson, R.F., Middleton, E.M., Morton, D.C., McCorkel, J.T., Masek, J.G., Ranson, K.J., Ly, V., et al., 2013, NASA goddard's LiDAR, hyperspectral and thermal (G-LiHT) airborne imager: Remote Sensing, v. 5, no. 8, p. 4045-4066, at http://dx.doi.org/10.3390/rs5084045.

Cook, M., Schott, J.R., Mandel, J., and Raqueno, N., 2014, Development of an operational calibration methodology for the Landsat thermal data archive and initial testing of the atmospheric compensation component of a land surface temperature (LST) product from the archive: Remote Sensing, v. 6, no. 11, p. 11244-11266, at http://dx.doi.org/10.3390/rs61111244.

Cook, M.J., and Schott, J.R., 2014, The atmospheric compensation component of a Landsat land surface temperature (LST) product—Assessment of errors expected for a North American test product, *in* Toth, C., Holm, T., and Jutzi, B., eds., ISPRS Technical Commission I Symposium, Denver, Colo.,

17-20 November 2014, The International Archives of Photogrammetry and Remote Sensing, XL-1: Bethesda, Md., International Society for Photogrammetry and Remote Sensing, p. 73-79, at http://dx.doi.org/10.5194/isprsarchives-XL-1-73-2014.

Cook, M.J., and Schott, J.R., 2014, A novel confidence metric approach for a Landsat land surface temperature product, *in* Geospatial power in our pockets, ASPRS Annual Conference, Co-Located with Joint Agency Commercial Imagery Evaluation Workshop, JACIE 2014, Louisville, Ky., 23-28 March 2014: Bethesda, Md., American Society for Photogrammetry and Remote Sensing, unpaged, at http://www.asprs.org/a/publications/proceedings/Louisville2014/cook.pdf.

Coops, N.C., Duro, D.C., Wulder, M.A., and Han, T., 2007, Estimating afternoon MODIS land surface temperatures (LST) based on morning MODIS overpass, location and elevation information: International Journal of Remote Sensing, v. 28, no. 10, p. 2391-2396, at http://dx.doi.org/10.1080/01431160701294653.

Coops, N.C., Gillanders, S.N., Wulder, M.A., Gergel, S.E., Nelson, T., and Goodwin, N.R., 2010, Assessing changes in forest fragmentation following infestation using time series Landsat imagery: Forest Ecology and Management, v. 259, no. 12, p. 2355-2365, at http://dx.doi.org/10.1016/j.foreco.2010.03.008.

Coops, N.C., Hilker, T., Bater, C.W., Wulder, M.A., Nielsen, S.E., McDermid, G., and Stenhouse, G., 2012, Linking ground-based to satellite-derived phenological metrics in support of habitat assessment: Remote Sensing Letters, v. 3, no. 3, p. 191-200, at http://dx.doi.org/10.1080/01431161.2010.550330.

Coops, N.C., Hilker, T., Wulder, M.A., St-Onge, B., Newnham, G., Siggins, A., and Trofymow, J.A., 2007, Estimating canopy structure of Douglas-fir forest stands from discrete-return LiDAR: Trees - Structure and Function, v. 21, no. 3, p. 295-310, at http://dx.doi.org/10.1007/s00468-006-0119-6.

Coops, N.C., Johnson, M., Wulder, M.A., and White, J.C., 2006, Assessment of QuickBird high spatial resolution imagery to detect red attack damage due to mountain pine beetle infestation: Remote Sensing of Environment, v. 103, no. 1, p. 67-80, at http://dx.doi.org/10.1016/j.rse.2006.03.012.

Coops, N.C., Timko, J.A., Wulder, M.A., White, J.C., and Ortlepp, S.M., 2008, Investigating the effectiveness of Mountain Pine Beetle mitigation strategies: International Journal of Pest Management, v. 54, no. 2, p. 151-165, at http://dx.doi.org/10.1080/09670870701805737.

Coops, N.C., Waring, R.H., Wulder, M.A., Pidgeon, A.M., and Radeloff, V.C., 2009, Bird diversity—A predictable function of satellite-derived estimates of seasonal variation in canopy light absorbance across the United States: Journal of Biogeography, v. 36, no. 5, p. 905-918, at http://dx.doi.org/10.1111/j.1365-2699.2008.02053.x.

Coops, N.C., Waring, R.H., Wulder, M.A., and White, J.C., 2009, Prediction and assessment of bark beetle-induced mortality of lodgepole pine using estimates of stand vigor derived from remotely sensed data: Remote Sensing of Environment, v. 113, no. 5, p. 1058-1066, at http://dx.doi.org/10.1016/j.rse.2009.01.013.

Coops, N.C., and Wulder, M.A., 2010, Estimating the reduction in gross primary production due to mountain pine beetle infestation using satellite observations: International Journal of Remote Sensing, v. 31, no. 8, p. 2129-2138, at http://dx.doi.org/10.1080/01431160903474947.

Coops, N.C., Wulder, M.A., Duro, D.C., Han, T., and Berry, S., 2008, The development of a Canadian dynamic habitat index using multi-temporal satellite estimates of canopy light absorbance: Ecological Indicators, v. 8, no. 5, p. 754-766, at http://dx.doi.org/10.1016/j.ecolind.2008.01.007.

Coops, N.C., Wulder, M.A., and Iwanicka, D., 2009, Demonstration of a satellite-based index to monitor habitat at continental-scales: Ecological Indicators, v. 9, no. 5, p. 948-958, at http://dx.doi.org/10.1016/j.ecolind.2008.11.003.

Coops, N.C., Wulder, M.A., and Iwanicka, D., 2009, An environmental domain classification of Canada using earth observation data for biodiversity assessment: Ecological Informatics, v. 4, no. 1, p. 8-22, at http://dx.doi.org/10.1016/j.ecoinf.2008.09.005.

Coops, N.C., Wulder, M.A., and Iwanicka, D., 2009, Exploring the relative importance of satellite-derived descriptors of production, topography and land cover for predicting breeding bird species richness over Ontario, Canada: Remote Sensing of Environment, v. 113, no. 3, p. 668-679, at http://dx.doi.org/10.1016/j.rse.2008.11.012.

Coops, N.C., Wulder, M.A., and Iwanicka, D., 2009, Large area monitoring with a MODIS-based Disturbance Index (DI) sensitive to annual and seasonal variations: Remote Sensing of Environment, v. 113, no. 6, p. 1250-1261, at http://dx.doi.org/10.1016/j.rse.2009.02.015.

Coops, N.C., Wulder, M.A., and Waring, R.H., 2012, Modeling lodgepole and jack pine vulnerability to mountain pine beetle expansion into the western Canadian boreal forest: Forest Ecology and Management, v. 274, p. 161-171, at http://dx.doi.org/10.1016/j.foreco.2012.02.011.

Coops, N.C., Wulder, M.A., and White, J.C., 2006, Integrating remotely sensed and ancillary data sources to characterize a mountain pine beetle infestation: Remote Sensing of Environment, v. 105, no. 2, p. 83-97, at http://dx.doi.org/10.1016/j.rse.2006.06.007.

Corp, L.A., Cook, B.D., McCorkel, J., and Middleton, E.M., 2015, Data products of NASA Goddard's LiDAR, Hyperspectral, and Thermal airborne imager (G-LiHT), *in* Druy, M.A., Crocombe, R.A., and Bannon, D.P., eds., Next-Generation Spectroscopic Technologies VIII, Baltimore, Md., 20-23 April 2015, Proceedings of SPIE Vol. 9482: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 2319226, at http://dx.doi.org/10.1117/12.2177083.

Coulston, J.W., Blinn, C.E., Thomas, V.A., and Wynne, R.H., 2016, Approximating prediction uncertainty for random forest regression models: Photogrammetric Engineering and Remote Sensing, v. 82, no. 3, p. 189-197, at http://dx.doi.org/10.14358/PERS.82.3.189.

Coulston, J.W., Moisen, G.G., Wilson, B.T., Finco, M.V., Cohen, W.B., and Brewer, C.K., 2012, Modeling percent tree canopy cover—A pilot study: Photogrammetric Engineering and Remote Sensing, v. 78, no. 7, p. 715-727, at http://dx.doi.org/10.14358/PERS.78.7.715.

Cristóbal, J., and Anderson, M.C., 2013, Validation of a Meteosat Second Generation solar radiation dataset over the northeastern Iberian Peninsula: Hydrology and Earth System Sciences, v. 17, no. 1, p. 163-175, at http://dx.doi.org/10.5194/hess-17-163-2013.

Croke, J.C., Purvis-Smith, D., Thompson, C.J., and Lymburner, L., 2008, The effect of local-scale valley constrictions on flood inundation and catchment-scale sediment delivery in the Fitzroy River Basin, Australia, *in* Schmidt, J., ed., Symposium of the International Commission on Continental Erosion, Christchurch, New Zealand, 1-5 December 2008, Sediment dynamics in changing environments, Proceedings: Wallingford, UK, IAHS Press, p. 200-207, at http://iahs.info/uploads/dms/14514.31-200-207-25-325-Croke.pdf.

Crow, W.T., Lei, F., Hain, C., Anderson, M.C., Scott, R.L., Billesbach, D., and Arkebauer, T., 2015, Robust estimates of soil moisture and latent heat flux coupling strength obtained from triple collocation: Geophysical Research Letters, v. 42, no. 20, p. 8415-8423, at http://dx.doi.org/10.1002/2015GL065929.

Csiszar, I., Justice, C.O., and Goldammer, J.G., 2007, The GOFC-GOLD-Fire program—A mechanism for international cooperation in fire mapping and monitoring, *in* Sustainable development through global Earth observations, International Symposium on Remote Sensing of Environment, 32nd, San Jose, Costa Rica, 25-29 June 2007, Proceedings: Tucson, Ariz., International Center for Remote Sensing of Environment, p. 1-12, at http://www.fire.uni-freiburg.de/sevilla-2007/contributions/doc/cd/INTRODUCTORIAS_ST/Justice_ST4.pdf.

Csiszar, I., Justice, C.O., Prins, E., Schroeder, W., Schmidt, C., and Giglio, L., 2011, Evolution of active fire monitoring capabilities from the US geostationary and polar orbiting satellite series, *in* Towards operational environmental monitoring, International Symposium on Remote Sensing of Environment—The GEOSS Era, 34th, Sydney, Australia, 10-15 April 2011, Proceedings: Tuscon, Ariz., International Center for Remote Sensing of Environment, p. 1-4, at http://www.isprs.org/proceedings/2011/ISRSE-34/.

Czapla-Myers, J., McCorkel, J., Anderson, N., Thome, K., Biggar, S., Helder, D., Aaron, D., Leigh, L., and Mishra, N., 2015, The ground-based absolute radiometric calibration of Landsat 8 OLI: Remote Sensing, v. 7, no. 1, p. 600-626, at http://dx.doi.org/10.3390/rs70100600.

Czapla-Myers, J., Ong, L., Thome, K., and McCorkel, J., 2016, Validation of EO-1 Hyperion and Advanced Land Imager using the radiometric calibration test site at Railroad Valley, Nevada: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 9, no. 2, p. 816-826, at http://dx.doi.org/10.1109/JSTARS.2015.2463101.

Czapla-Myers, J., Thome, K., Anderson, N., McCorkel, J., Leisso, N., Good, W., and Collins, S., 2009, Transmittance measurement of a heliostat facility used in the preflight radiometric calibration of Earth-observing sensors, *in* Butler, J.J., Xiong, X., and Gu, X.F., eds., Earth Observing Systems XIV, San Diego, Calif., 3-5 August 2009, Proceedings of SPIE Vol. 7452: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 74520P, at http://dx.doi.org/10.1117/12.828873.

Czapla-Myers, J.S., Thome, K.J., Cocilovo, B.R., McCorkel, J.T., and Buchanan, J.H., 2008, Temporal, spectral, and spatial study of the automated vicarious calibration test site at Railroad Valley, Nevada, *in* Butler, J.J., and Xiong, J., eds., Earth Observing Systems XIII, San Diego, Calif., 11-13 August 2008, Proceedings of SPIE Vol. 7081: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 70810I, at http://dx.doi.org/10.1117/12.795551.

Damm, A., Elber, J., Erler, A., Gioli, B., Hamdi, K., Hutjes, R., Kosvancova, M., Meroni, M., Miglietta, F., et al., 2010, Remote sensing of sun-induced fluorescence to improve modeling of diurnal courses of gross primary production (GPP): Global Change Biology, v. 16, no. 1, p. 171-186, at http://dx.doi.org/10.1111/j.1365-2486.2009.01908.x.

Daniel, B.J., Bolcar, M.R., Schott, J.R., and Fienup, J.R., 2008, Phase retrieval in sparse aperture systems with phase diversity—a trade space study, *in* Howard, R.T., and Motaghedi, P., eds., Sensors and Systems for Space Applications II, Orlando, Fla., 17-18 March 2008, Proceedings of SPIE Vol. 6958: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 69580K, at http://dx.doi.org/10.1117/12.782191.

Danner, E.M., Melton, F.S., Pike, A., Hashimoto, H., Michaelis, A., Rajagopalan, B., Caldwell, J., Dewitt, L., Lindley, S., et al., 2012, River temperature forecasting—A coupled-modeling framework for management of river habitat: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 5, no. 6, p. 1752-1760, at http://dx.doi.org/10.1109/JSTARS.2012.2229968.

Das, I., Bell, R.E., Scambos, T.A., Wolovick, M., Creyts, T.T., Studinger, M., Frearson, N., Nicolas, J.P., Lenaerts, J.T.M., et al., 2013, Influence of persistent wind scour on the surface mass balance of Antarctica: Nature Geoscience, v. 6, no. 5, p. 367-371, at http://dx.doi.org/10.1038/ngeo1766.

Das, I., Scambos, T.A., Koenig, L.S., Van Den Broeke, M.R., and Lenaerts, J.T.M., 2015, Extreme wind-ice interaction over Recovery Ice Stream, East Antarctica: Geophysical Research Letters, v. 42, no. 19, p. 8064-8071, at http://dx.doi.org/10.1002/2015GL065544.

Davies, D.K., Ilavajhala, S., Wong, M.M., and Justice, C.O., 2009, Erratum—Near real-time fire alert system in South Africa—From desktop to mobile service (IEEE Transactions on Geoscience and Remote Sensing (2009) (315-322)): IEEE Transactions on Geoscience and Remote Sensing, v. 47, no. 9, p. 3298-3298, at http://dx.doi.org/10.1109/TGRS.2009.2030133.

Davies, D.K., Ilavajhala, S., Wong, M.M., and Justice, C.O., 2009, Fire information for resource management system—Archiving and distributing MODIS active fire data: IEEE Transactions on Geoscience and Remote Sensing, v. 47, no. 1, p. 72-79, at http://dx.doi.org/10.1109/TGRS.2008.2002076.

Dempewolf, J., Adusei, B., Becker-Reshef, I., Barker, B., Potapov, P., Hansen, M., and Justice, C., 2013, Wheat production forecasting for Pakistan from satellite data, *in* International Geoscience and Remote Sensing Symposium, Melbourne, Australia, 21-26 July 2013, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 3239-3242, at http://dx.doi/org/10.1109/IGARSS.2013.6723517.

Descheemaeker, K., Raes, D., Allen, R., Nyssen, J., Poesen, J., Muys, B., Haile, M., and Deckers, J., 2011, Two rapid appraisals of FAO-56 crop coefficients for semiarid natural vegetation of the northern Ethiopian highlands: Journal of Arid Environments, v. 75, no. 4, p. 353-359, at http://dx.doi.org/10.1016/j.jaridenv.2010.12.002.

Devaraju, N., Cao, L., Bala, G., Caldeira, K., and Nemani, R., 2011, A model investigation of vegetation-atmosphere interactions on a millennial timescale: Biogeosciences, v. 8, no. 12, p. 3677-3686, at http://dx.doi.org/10.5194/bg-8-3677-2011.

Dheeravath, V., Thenkabail, P.S., Chandrakantha, G., Noojipady, P., Reddy, G.P.O., Biradar, C.M., Gumma, M.K., and Velpuri, M., 2010, Irrigated areas of India derived using MODIS 500 m time series for the years 2001-2003: ISPRS Journal of Photogrammetry and Remote Sensing, v. 65, no. 1, p. 42-59, at http://dx.doi.org/10.1016/j.isprsjprs.2009.08.004.

Dickinson, R.E., Zhou, L., Tian, Y., Liu, Q., Lavergne, T., Pinty, B., Schaaf, C.B., and Knyazikhin, Y., 2008, A three-dimensional analytic model for the scattering of a spherical bush: Journal of Geophysical Research D—Atmospheres, v. 113, no. 20, citation number D20113, at http://dx.doi.org/10.1029/2007JD009564.

Diermayer, E., and Hostert, P., 2007, Assessing post-socialist urban change with Landsat data case study Berlin, Germany, *in* Urban Remote Sensing Joint Event, Paris, France, 11-13 April 2007, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), article number 4234470, at http://dx.doi.org/10.1109/URS.2007.371871.

Dieye, A.M., and Roy, D.P., 2012, A study of rural senegalese attitudes and perceptions of their behavior to changes in the climate: Environmental Management, v. 50, no. 5, p. 929-941, at http://dx.doi.org/10.1007/s00267-012-9932-4.

Dieye, A.M., Roy, D.P., Hanan, N.P., Liu, S., Hansen, M., and Touré, A., 2012, Sensitivity analysis of the GEMS soil organic carbon model to land cover land use classification uncertainties under

different climate scenarios in senegal: Biogeosciences, v. 9, no. 2, p. 631-648, at http://dx.doi.org/10.5194/bg-9-631-2012.

Disney, M.I., Lewis, P., Gomez-Dans, J., Roy, D., Wooster, M.J., and Lajas, D., 2011, 3D radiative transfer modelling of fire impacts on a two-layer savanna system: Remote Sensing of Environment, v. 115, no. 8, p. 1866-1881, at http://dx.doi.org/10.1016/j.rse.2011.03.010.

Dobbs, B.M., Sanders, N.J., and Schott, J.R., 2006, The incorporation of atmospheric variability in hyperspectral synthetic scene simulation, *in* Shen, S.S., and Lew, P.E., eds., Imaging Spectrometry XI, San Diego, Calif., 14-16 August 2006, Proceedings of SPIE Vol. 6302: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 63020C, at http://dx.doi.org/10.1117/12.682733.

Dolan, K., Masek, J.G., Huang, C., and Sun, G., 2009, Regional forest growth rates measured by combining ICESat GLAS and Landsat data: Journal of Geophysical Research G—Biogeosciences, v. 114, no. 4, citation number G00E05, at http://dx.doi.org/10.1029/2008JG000893.

Dolan, K.A., Hurtt, G.C., Chambers, J.Q., Dubayah, R.O., Frolking, S., and Masek, J.G., 2011, Using ICESat's Geoscience Laser Altimeter System (GLAS) to assess large-scale forest disturbance caused by hurricane Katrina: Remote Sensing of Environment, v. 115, no. 1, p. 86-96, at http://dx.doi.org/10.1016/j.rse.2010.08.007.

Donnellan, A., Bills, B., Green, J.J., Goullioud, R., Jones, S., Knight, R., Underhill, M., Goguen, J., De Jong, E.M., et al., 2014, Studying mountain glacier processes using a staring instrument, *in* IEEE Aerospace Conference, Big Sky, Mont., 1-8 March 2014, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 1-17, at http://dx.doi.org/10.1109/AERO.2014.6836284.

Drummond, M.A., Auch, R.F., Karstensen, K.A., Sayler, K.L., Taylor, J.L., and Loveland, T.R., 2012, Land change variability and human-environment dynamics in the United States Great Plains: Land Use Policy, v. 29, no. 3, p. 710-723, at http://dx.doi.org/10.1016/j.landusepol.2011.11.007.

Drummond, M.A., and Loveland, T.R., 2010, Land-use pressure and a transition to forest-cover loss in the eastern United States: BioScience, v. 60, no. 4, p. 286-298, at http://dx.doi.org/10.1525/bio.2010.60.4.7.

Duane, M.V., Cohen, W.B., Campbell, J.L., Hudiburg, T., Turner, D.P., and Weyermann, D.L., 2010, Implications of alternative field-sampling designs on Landsat-based mapping of stand age and carbon stocks in Oregon forests: Forest Science, v. 56, no. 4, p. 405-416, at http://www.ingentaconnect.com/content/saf/fs/2010/00000056/00000004/art00008.

Duncanson, L.I., Niemann, K.O., and Wulder, M.A., 2010, Estimating forest canopy height and terrain relief from GLAS waveform metrics: Remote Sensing of Environment, v. 114, no. 1, p. 138-154, at http://dx.doi.org/10.1016/j.rse.2009.08.018.

Duncanson, L.I., Niemann, K.O., and Wulder, M.A., 2010, Integration of GLAS and Landsat TM data for aboveground biomass estimation: Canadian Journal of Remote Sensing, v. 36, no. 2, p. 129-141, at http://dx.doi.org/10.5589/m10-037.

Duro, D.C., Coops, N.C., Wulder, M.A., and Han, T., 2007, Development of a large area biodiversity monitoring system driven by remote sensing: Progress in Physical Geography, v. 31, no. 3, p. 235-260, at http://dx.doi.org/10.1177/0309133307079054.

Dwyer, J., Dinardo, T., and Muchoney, D., 2011, Developing climate data records and essential climate variables from Landsat data, *in* Towards operational environmental monitoring, International Symposium on Remote Sensing of Environment—The GEOSS Era, 34th, Sydney, Australia, 10-15 April 2011, Proceedings: Tuscon, Ariz., International Center for Remote Sensing of Environment, p. 1-3, at http://www.isprs.org/proceedings/2011/ISRSE-34/.

Dwyer, J.L., 2006, Remotely sensed data available from the US Geological Survey EROS Data Center, *in* Qu, J.J., Gao, W., Kafatos, M., Murphy, R.E., and Salomonson, V.V., eds., Earth science satellite remote sensing—data, computational processing, and tools: Berlin, Germany, Springer, p. 18-51, at http://dx.doi.org/10.1007/978-3-540-37294-3_3.

Dwyer, J.L., and Schmidt, G.L., 2006, The MODIS reprojection tool, *in* Qu, J.J., Gao, W., Kafatos, M., Murphy, R.E., and Salomonson, V.V., eds., Earth science satellite remote sensing—data, computational processing, and tools: Berlin, Germany, Springer, p. 162-177, at http://dx.doi.org/10.1007/978-3-540-37294-3_9.

Dymond, C.C., Wulder, M.A., Shore, T.L., Nelson, T., Boots, B., and Riel, B.G., 2006, Evaluation of risk assessment of mountain pine beetle infestations: Western Journal of Applied Forestry, v. 21, no. 1, p. 5-13, at http://www.ingentaconnect.com/content/saf/wjaf/2006/00000021/00000001/art00002.

Eck, T.F., Holben, B.N., Reid, J.S., Sinyuk, A., Hyer, E.J., O'Neill, N.T., Shaw, G.E., Vande Castle, J.R., Chapin, F.S., et al., 2009, Optical properties of boreal region biomass burning aerosols in central Alaska and seasonal variation of aerosol optical depth at an Arctic coastal site: Journal of Geophysical Research D—Atmospheres, v. 114, no. 11, citation number D11201, at http://dx.doi.org/10.1029/2008JD010870.

Egorov, A.V., Hansen, M.C., Roy, D.P., Kommareddy, A., and Potapov, P.V., 2015, Image interpretation-guided supervised classification using nested segmentation: Remote Sensing of Environment, v. 165, p. 135-147, at http://dx.doi.org/10.1016/j.rse.2015.04.022.

Eisele, A., Chabrillat, S., Hecker, C., Hewson, R., Lau, I.C., Rogass, C., Segl, K., Cudahy, T.J., Udelhoven, T., et al., 2015, Advantages using the thermal infrared (TIR) to detect and quantify semi-arid soil properties: Remote Sensing of Environment, v. 163, p. 296-311, at http://dx.doi.org/10.1016/j.rse.2015.04.001.

Ellicott, E., Vermote, E., Giglio, L., and Roberts, G., 2009, Estimating biomass consumed from fire using MODIS FRE: Geophysical Research Letters, v. 36, no. 13, citation number L13401, at http://dx.doi.org/10.1029/2009GL038581.

Ellicott, E., Vermote, E., Petitcolin, F., and Hook, S.J., 2009, Validation of a new parametric model for atmospheric correction of thermal infrared data: IEEE Transactions on Geoscience and Remote Sensing, v. 47, no. 1, p. 295-311, at http://dx.doi.org/10.1109/TGRS.2008.2006182.

Elvidge, C., Pettit, D., Imhoff, M., Nemani, R., Pack, D., and Cinzano, P., 2008, Observational considerations for moderate resolution nighttime lights, *in* Butler, J.J., and Xiong, J., eds., Earth Observing Systems XIII, San Diego, Calif., 11-13 August 2008, Proceedings of SPIE Vol. 7081: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 70810V, at http://dx.doi/org/10.1117/12.795537.

Elvidge, C.D., Cinzano, P., Pettit, D.R., Arvesen, J., Sutton, P., Small, C., Nemani, R., Longcore, T., Rich, C., et al., 2007, The nightsat mission concept: International Journal of Remote Sensing, v. 28, no. 12, p. 2645-2670, at http://dx.doi.org/10.1080/01431160600981525.

Elvidge, C.D., Tuttle, B.T., Sutton, P.S., Baugh, K.E., Howard, A.T., Milesi, C., Bhaduri, B.L., and Nemani, R., 2007, Global distribution and density of constructed impervious surfaces: Sensors, v. 7, no. 9, p. 1962-1979, at http://dx.doi.org/10.3390/s7091962.

Er-Raki, S., Chehbouni, A., Khabba, S., Simonneaux, V., Jarlan, L., Ouldbba, A., Rodriguez, J.C., and Allen, R., 2010, Assessment of reference evapotranspiration methods in semi-arid regions—Can weather forecast data be used as alternate of ground meteorological parameters?: Journal of Arid Environments, v. 74, no. 12, p. 1587-1596, at http://dx.doi.org/10.1016/j.jaridenv.2010.07.002.

Estel, S., Kuemmerle, T., Alcántara, C., Levers, C., Prishchepov, A., and Hostert, P., 2015, Mapping farmland abandonment and recultivation across Europe using MODIS NDVI time series: Remote Sensing of Environment, v. 163, p. 312-325, at http://dx.doi.org/10.1016/j.rse.2015.03.028.

Estel, S., Kuemmerle, T., Levers, C., Baumann, M., and Hostert, P., 2016, Mapping cropland-use intensity across Europe using MODIS NDVI time series: Environmental Research Letters, v. 11, no. 2, at http://dx.doi.org/10.1088/1748-9326/11/2/024015.

Euliss Jr, N.H., Smith, L.M., Liu, S., Feng, M., Mushet, D.M., Auch, R.F., and Loveland, T.R., 2010, The need for simultaneous evaluation of ecosystem services and land use change: Environmental Science and Technology, v. 44, no. 20, p. 7761-7763, at http://dx.doi.org/10.1021/es102761c.

Evett, S.R., Kustas, W.P., Gowda, P.H., Anderson, M.C., Prueger, J.H., and Howell, T.A., 2012, Overview of the Bushland Evapotranspiration and Agricultural Remote sensing EXperiment 2008 (BEAREX08)—A field experiment evaluating methods for quantifying ET at multiple scales: Advances in Water Resources, v. 50, p. 4-19, at http://dx.doi.org/10.1016/j.advwatres.2012.03.010.

Fahnestock, M., Scambos, T., Moon, T., Gardner, A., Haran, T., and Klinger, M., in press, Rapid large-area mapping of ice flow using Landsat 8: Remote Sensing of Environment, p. 0-0, at http://dx.doi.org/10.1016/j.rse.2015.11.023.

Falkowski, M.J., Wulder, M.A., White, J.C., and Gillis, M.D., 2009, Supporting large-area, sample-based forest inventories with very high spatial resolution satellite imagery: Progress in Physical Geography, v. 33, no. 3, p. 403-423, at http://dx.doi.org/10.1177/0309133309342643.

Fang, H., Liang, S., Kim, H.Y., Townshend, J.R., Schaaf, C.L., Strahler, A.H., and Dickinson, R.E., 2007, Developing a spatially continuous 1 km surface albedo data set over North America from Terra MODIS products: Journal of Geophysical Research D—Atmospheres, v. 112, no. 20, citation number D20206, at http://dx.doi.org/10.1029/2006JD008377.

Farmer, C.J.Q., Nelson, T.A., Wulder, M.A., and Derksen, C., 2010, Identification of snow cover regimes through spatial and temporal clustering of satellite microwave brightness temperatures: Remote Sensing of Environment, v. 114, no. 1, p. 199-210, at http://dx.doi.org/10.1016/j.rse.2009.09.002.

Farmer, C.J.Q., Nelson, T.A., Wulder, M.A., and Derksen, C., 2009, Spatial-temporal patterns of snow cover in western Canada: Canadian Geographer, v. 53, no. 4, p. 473-487, at http://dx.doi.org/10.1111/j.1541-0064.2009.00283.x.

Fassnacht, K.S., Cohen, W.B., and Spies, T.A., 2006, Key issues in making and using satellite-based maps in ecology—A primer: Forest Ecology and Management, v. 222, no. 1-3, p. 167-181, at http://dx.doi.org/10.1016/j.foreco.2005.09.026.

Feng, M., Huang, C., Channan, S., Vermote, E.F., Masek, J.G., and Townshend, J.R., 2012, Quality assessment of Landsat surface reflectance products using MODIS data: Computers and Geosciences, v. 38, no. 1, p. 9-22, at http://dx.doi.org/10.1016/j.cageo.2011.04.011.

Feng, M., Sexton, J.O., Huang, C., Masek, J.G., Vermote, E.F., Gao, F., Narasimhan, R., Channan, S., Wolfe, R.E., et al., 2013, Global surface reflectance products from Landsat—Assessment using coincident MODIS observations: Remote Sensing of Environment, v. 134, p. 276-293, at http://dx.doi.org/10.1016/j.rse.2013.02.031.

Fetene, A., Hilker, T., Yeshitela, K., Prasse, R., Cohen, W., and Yang, Z., 2016, Detecting trends in landuse and landcover change of Nech Sar National Park, Ethiopia: Environmental Management, v. 57, no. 1, p. 137-147, at http://dx.doi.org/10.1007/s00267-015-0603-0.

Fickas, K.C., Cohen, W.B., and Yang, Z., 2016, Landsat-based monitoring of annual wetland change in the Willamette Valley of Oregon, USA from 1972 to 2012: Wetlands Ecology and Management, v. 24, no. 1, p. 73-92, at http://dx.doi.org/10.1007/s11273-015-9452-0.

Fitterer, J.L., Nelson, T.A., Coops, N.C., and Wulder, M.A., 2012, Modelling the ecosystem indicators of British Columbia using Earth observation data and terrain indices: Ecological Indicators, v. 20, p. 151-162, at http://dx.doi.org/10.1016/j.ecolind.2012.02.024.

Fitterer, J.L., Nelson, T.A., Coops, N.C., Wulder, M.A., and Mahony, N.A., 2013, Exploring the ecological processes driving geographical patterns of breeding bird richness in British Columbia, Canada: Ecological Applications, v. 23, no. 4, p. 888-903, at http://dx.doi.org/10.1890/12-1225.1.

Flusche, B.M., Gartley, M.G., and Schott, J.R., 2010, Assessing the impact of spectral and polarimetric data fusion via simulation to support multimodal sensor system design requirements: Journal of Applied Remote Sensing, v. 4, no. 1, citation identifier 043562, at http://dx.doi.org/10.1117/1.3525590.

Flusche, B.M., Gartley, M.G., and Schott, J.R., 2010, Defining a process to fuse polarimetric and spectral data for target detection and explore the trade space via simulation: Journal of Applied Remote Sensing, v. 4, no. 1, citation identifier 043550, at http://dx.doi.org/10.1117/1.3516616.

Fontana, F.M.A., Coops, N.C., Khlopenkov, K.V., Trishchenko, A.P., Riffler, M., and Wulder, M.A., 2012, Generation of a novel 1km NDVI data set over Canada, the northern United States, and Greenland based on historical AVHRR data: Remote Sensing of Environment, v. 121, p. 171-185, at http://dx.doi.org/10.1016/j.rse.2012.01.007.

Förster, M., Schmidt, T., Gärtner, P., Kleinschmit, B., Gao, F., and Möller, M., 2015, Evaluating the temporal stability of synthetically generated time-series for crop types in Central Germany, *in* Analysis of Multitemporal Remote Sensing Images (Multi-Temp), International Workshop, 8th, Annecy, France, 22-24 July 2015, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), article number 7245811, at http://dx.doi.org/10.1109/Multi-Temp.2015.7245811.

Fortier, J., Rogan, J., Woodcock, C.E., and Runfola, D.M., 2011, Utilizing temporally invariant calibration sites to classify multiple dates and types of satellite imagery: Photogrammetric Engineering and Remote Sensing, v. 77, no. 2, p. 181-189, at http://dx.doi.org/10.14358/PERS.77.2.181.

Foster, M.S., Schott, J.R., and Messinger, D.W., 2008, Spin-image target detection algorithm applied to low density 3D point clouds: Journal of Applied Remote Sensing, v. 2, no. 1, citation identifier 023539, at http://dx.doi.org/10.1117/1.3002398.

Foster, M.S., Schott, J.R., Messinger, D.W., and Raqueño, R., 2007, Use of lidar data to geometrically-constrain radiance spaces for physics-based target detection, *in* Bartlett, B., and Schott, J.R., eds., Imaging Spectrometry, XII, San Diego, Calif., 28-29 August 2007, Proceedings of SPIE Vol.

6661: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 66610J, at http://dx.doi.org/10.1117/12.729488.

Franch, B., Vermote, E.F., Becker-Reshef, I., Claverie, M., Huang, J., Zhang, J., Justice, C., and Sobrino, J.A., 2015, Improving the timeliness of winter wheat production forecast in the United States of America, Ukraine and China using MODIS data and NCAR Growing Degree Day information: Remote Sensing of Environment, v. 161, p. 131-148, at http://dx.doi.org/10.1016/j.rse.2015.02.014.

Franch, B., Vermote, E.F., and Claverie, M., 2014, Intercomparison of Landsat albedo retrieval techniques and evaluation against in situ measurements across the US SURFRAD network: Remote Sensing of Environment, v. 152, p. 627-637, at http://dx.doi.org/10.1016/j.rse.2014.07.019.

Franch, B., Vermote, E.F., Sobrino, J.A., and Fédèle, E., 2013, Analysis of directional effects on atmospheric correction: Remote Sensing of Environment, v. 128, p. 276-288, at http://dx.doi.org/10.1016/j.rse.2012.10.018.

Franch, B., Vermote, E.F., Sobrino, J.A., and Julien, Y., 2014, Retrieval of surface albedo on a daily basis—application to MODIS data: IEEE Transactions on Geoscience and Remote Sensing, v. 52, no. 12, p. 7549 - 7558, at http://dx.doi.org/10.1109/TGRS.2014.2313842.

Franklin, S.E., Ahmed, O.S., Wulder, M.A., White, J.C., Hermosilla, T., and Coops, N.C., 2015, Large area mapping of annual land cover dynamics using multitemporal change detection and classification of Landsat time series data: Canadian Journal of Remote Sensing, v. 41, no. 4, p. 293-314, at http://dx.doi.org/10.1080/07038992.2015.1089401.

Franks, S., and Masek, J., 2007, How many bits? Radiometric resolution as a factor in obtaining forestry information with remotely sensed measurements, *in* International Geoscience and Remote Sensing Symposium, Barcelona, Spain, 23-28 July 2007, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 1291-1294, at http://dx.doi/org/10.1109/IGARSS.2007.4423042.

Franks, S., Masek, J.G., Headley, R.M.K., Gasch, J., and Arvidson, T., 2009, Large area scene selection interface (LASSI)—Methodology of selecting Landsat imagery for The Global Land Survey 2005: Photogrammetric Engineering and Remote Sensing, v. 75, no. 11, p. 1287-1296, at http://dx.doi.org/10.14358/PERS.75.11.1287.

Franks, S., Masek, J.G., and Turner, M.G., 2013, Monitoring forest regrowth following large scale fire using satellite data—A case study of Yellowstone National Park, USA: European Journal of Remote Sensing, v. 46, no. 1, p. 561-569, at http://dx.doi.org/10.5721/EuJRS20134632.

Frazer, G.W., Magnussen, S., Wulder, M.A., and Niemann, K.O., 2011, Simulated impact of sample plot size and co-registration error on the accuracy and uncertainty of LiDAR-derived estimates of forest stand biomass: Remote Sensing of Environment, v. 115, no. 2, p. 636-649, at http://dx.doi.org/10.1016/j.rse.2010.10.008.

Frazier, R.J., Coops, N.C., and Wulder, M.A., 2015, Boreal Shield forest disturbance and recovery trends using Landsat time series: Remote Sensing of Environment, v. 170, p. 317-327, at http://dx.doi.org/10.1016/j.rse.2015.09.015.

Frazier, R.J., Coops, N.C., Wulder, M.A., and Kennedy, R., 2014, Characterization of aboveground biomass in an unmanaged boreal forest using Landsat temporal segmentation metrics: ISPRS Journal of Photogrammetry and Remote Sensing, v. 92, p. 137-146, at http://dx.doi.org/10.1016/j.isprsjprs.2014.03.003.

Frederiksen, H.D., and Allen, R.G., 2011, A common basis for analysis, evaluation and comparison of offstream water uses: Water International, v. 36, no. 3, p. 266-282, at http://dx.doi.org/10.1080/02508060.2011.580449.

Fricker, G.A., Saatchi, S.S., Meyer, V., Gillespie, T.W., and Sheng, Y., 2012, Application of semi-automated filter to improve waveform lidar sub-canopy elevation model: Remote Sensing, v. 4, no. 6, p. 1494-1518, at http://dx.doi.org/10.3390/rs4061494.

Fricker, H.A., Carter, S.P., Bell, R.E., and Scambos, T., 2014, Active lakes of recovery ice stream, East Antarctica: A bedrock-controlled subglacial hydrological system: Journal of Glaciology, v. 60, no. 223, p. 1015-1030, at http://dx.doi.org/10.3189/2014JoG14J063.

Fricker, H.A., Coleman, R., Padman, L., Scambos, T.A., Bohlander, J., and Brunt, K.M., 2009, Mapping the grounding zone of the Amery Ice Shelf, East Antarctica using InSAR, MODIS and ICESat: Antarctic Science, v. 21, no. 5, p. 515-532, at http://dx.doi.org/10.1017/S095410200999023X.

Fricker, H.A., and Scambos, T., 2009, Connected subglacial lake activity on lower Mercer and Whillans Ice Streams, West Antarctica, 2003-2008: Journal of Glaciology, v. 55, no. 190, p. 303-315, at http://dx.doi.org/10.3189/002214309788608813.

Fricker, H.A., Scambos, T., Bindschadler, R., and Padman, L., 2007, An active subglacial water system in West Antarctica mapped from space: Science, v. 315, no. 5818, p. 1544-1548, at http://dx.doi.org/10.1126/science.1136897.

Fricker, H.A., Scambos, T., Carter, S., Davis, C., Haran, T., and Joughin, I., 2010, Synthesizing multiple remote-sensing techniques for subglacial hydrologic mapping—Application to a lake system beneath MacAyeal Ice Stream, West Antarctica: Journal of Glaciology, v. 56, no. 196, p. 187-199, at http://dx.doi.org/10.3189/002214310791968557.

Fricker, H.A., Siegfried, M.R., Carter, S.P., and Scambos, T.A., 2016, A decade of progress in observing and modeling Antarctic subglacial water systems: Philosophical Transactions of the Royal Society - Mathematical, Physical and Engineering Sciences, v. 374, no. 2059, at http://dx.doi.org/10.1098/rsta.2014.0294.

Friis, C., Nielsen, J.Ø., Otero, I., Haberl, H., Niewöhner, J., and Hostert, P., 2016, From teleconnection to telecoupling—Taking stock of an emerging framework in land system science: Journal of Land Use Science, v. 11, no. 2, p. 131-153, at http://dx.doi.org/10.1080/1747423X.2015.1096423.

Ganguly, S., Nemani, R.R., Knyazikhin, Y., Wang, W., Hashimoto, H., Votava, P., Michaelis, A., Milesi, C., Dungan, J.L., et al., 2010, A physically based approach in retrieving vegetation leaf area index from Landsat surface reflectance data, *in* Evolution in remote sensing, Workshop on Hyperspectral Image and Signal Processing, 2nd, Reykjavik, Iceland, 14-16 June 2010, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), article number 5594875, at http://dx.doi/org/10.1109/WHISPERS.2010.5594875.

Ganguly, S., Nemani, R.R., Zhang, G., Hashimoto, H., Milesi, C., Michaelis, A., Wang, W., Votava, P., Samanta, A., et al., 2012, Generating global Leaf Area Index from Landsat—Algorithm formulation and demonstration: Remote Sensing of Environment, v. 122, p. 185-202, at http://dx.doi.org/10.1016/j.rse.2011.10.032.

Ganguly, S., Samanta, A., Schull, M.A., Shabanov, N.V., Milesi, C., Nemani, R.R., Knyazikhin, Y., and Myneni, R.B., 2008, Generating vegetation leaf area index Earth system data record from multiple sensors. Part 2—Implementation, analysis and validation: Remote Sensing of Environment, v. 112, no. 12, p. 4318-4332, at http://dx.doi.org/10.1016/j.rse.2008.07.013.

Ganguly, S., Schull, M.A., Samanta, A., Shabanov, N.V., Milesi, C., Nemani, R.R., Knyazikhin, Y., and Myneni, R.B., 2008, Generating vegetation leaf area index earth system data record from multiple sensors. Part 1—Theory: Remote Sensing of Environment, v. 112, no. 12, p. 4333-4343, at http://dx.doi.org/10.1016/j.rse.2008.07.014.

Gao, F., 2013, Integrating Landsat with MODIS products for vegetation monitoring, *in* Qu, J., Powell, A., and Sivakumar, M.V.K., eds., Satellite-based applications on climate change: Netherlands, Springer, p. 247-261, at http://dx.doi.org/10.1007/978-94-007-5872-8_16.

Gao, F., Anderson, M.C., Kustas, W.P., and Houborg, R., 2014, Retrieving leaf area index from Landsat using MODIS LAI products and field measurements: IEEE Geoscience and Remote Sensing Letters, v. 11, no. 4, p. 773-777, at http://dx.doi.org/10.1109/LGRS.2013.2278782.

Gao, F., He, T., Masek, J.G., Shuai, Y., Schaaf, C.B., and Wang, Z., 2014, Angular effects and correction for medium resolution sensors to support crop monitoring: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 7, no. 11, at http://dx.doi.org/10.1109/JSTARS.2014.2343592.

Gao, F., Hilker, T., Zhu, X., Anderson, M., Masek, J., Wang, P., and Yang, Y., 2015, Fusing Landsat and MODIS data for vegetation monitoring: IEEE Geoscience and Remote Sensing Magazine, v. 3, no. 3, p. 47-60, at http://dx.doi.org/10.1109/MGRS.2015.2434351.

Gao, F., Kustas, W.P., and Anderson, M.C., 2012, A data mining approach for sharpening thermal satellite imagery over land: Remote Sensing, v. 4, no. 11, p. 3287-3319, at http://dx.doi.org/10.3390/rs4113287.

Gao, F., Masek, J., Schwaller, M., and Hall, F., 2006, On the blending of the Landsat and MODIS surface reflectance—Predicting daily Landsat surface reflectance: IEEE Transactions on Geoscience and Remote Sensing, v. 44, no. 8, p. 2207-2218, at http://dx.doi.org/10.1109/TGRS.2006.872081.

Gao, F., Masek, J., and Wolfe, R.E., 2009, Automated registration and orthorectification package for Landsat and Landsat-like data processing: Journal of Applied Remote Sensing, v. 3, no. 1, citation identifier 033515, at http://dx.doi.org/10.1117/1.3104620.

Gao, F., and Masek, J.G., 2006, Mapping wildland fire scar using fused Landsat and MODIS surface reflectance, *in* International Geoscience and Remote Sensing Symposium, Denver, Colo., 31 July-4 August 2006, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 4172-4175, at http://dx.doi/org/10.1109/IGARSS.2006.1070.

Gao, F., Masek, J.G., Wolfe, R.E., and Huang, C., 2010, Building a consistent medium resolution satellite data set using moderate resolution imaging spectroradiometer products as reference: Journal of Applied Remote Sensing, v. 4, no. 1, citation identifier 043526, at http://dx.doi.org/10.1117/1.3430002.

Gao, F., Masek, J.G., Wolfe, R.E., and Tan, B., 2010, Normalizing Landsat and ASTER data using MODIS data products for forest change detection, *in* International Geoscience and Remote Sensing Symposium, Honolulu, Hawaii, 25-30 July 2010, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 3206-3209, at http://dx.doi/org/10.1109/IGARSS.2010.5650978.

Gao, F., Shuai, Y., He, T., Schaaf, C.B., Masek, J.G., and Wang, Z., 2013, Influence of angular effects and adjustment on medium resolution sensors for crop monitoring, *in* Information for sustainable agriculture, International Conference on Agro-Geoinformatics, 2nd, Fairfax, Va., 12-16 August

2013, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 296-301, at http://dx.doi/org/10.1109/Argo-Geoinformatics.2013.6621925.

Gao, F., Wang, P., and Masek, J., 2013, Integrating remote sensing data from multiple optical sensors for ecological and crop condition monitoring, *in* Gao, W., Jackson, T.J., Wang, J., and Chang, N.B., eds., Remote Sensing and Modeling of Ecosystems for Sustainability X, San Diego, Calif., 26-29 August 2013, Proceedings of SPIE Vol. 8869: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 886903, at http://dx.doi/org/10.1117/12.2023417.

Gao, W., Hu, J., Li, Y., Qiu, H., Yuan, Z., Gao, F., Duan, Z., Suzuki, T., and Ohishi, Y., 2014, Supercontinuum generation in two kinds of chalcogenide microstructured optical fibers, *in* Zhang, X., Ming, H., and Yu, C., eds., Optoelectronic Devices and Integration V, Beijing, China, 9-11 October 2014, Proceedings of SPIE Vol. 9270: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 92701o, at http://dx.doi.org/10.1117/12.2073353.

Gartley, M., and Schott, J., 2013, Serendipitous imaging of space objects with the advanced land imager: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 6, no. 2, p. 440-445, at http://dx.doi.org/10.1109/JSTARS.2012.2222874.

Gartley, M.G., Brown, S.D., Goodenough, A.D., Sanders, N.J., and Schott, J.R., 2007, Polarimetric scene modeling in the thermal infrared, *in* Shaw, J.A., and Tyo, J.S., eds., Polarization Science and Remote Sensing III, San Diego, Calif., 29-30 August 2007, Proceedings of SPIE Vol. 6682: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 66820C, at http://dx.doi.org/10.1117/12.740528.

Gartley, M.G., Brown, S.D., and Schott, J.R., 2008, Micro-scale surface and contaminate modeling for polarimetric signature prediction, *in* Chenault, D.B., and Goldstein, D.H., eds., Polarization—Measurement, Analysis, and Remote Sensing VIII, Orlando, Fla., 18-19 March 2008, Proceedings of SPIE Vol. 6972: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 697213, at http://dx.doi.org/10.1117/12.801904.

Gartley, M.G., and Schott, J.R., 2009, Longwave infrared pBRDF principles, chap. 11 *Longwave infrared pBRDF principles* Schott, J.R., Fundamentals of Polarimetric Remote Sensing: Belllingham, Wash., SPIE Press, p. 191-210, at http://dx.doi.org/10.1117/3.817304.ch11.

Gartley, M.G., and Schott, J.R., 2009, LWIR pBRDF measurements and modelling, chap. 12 *LWIR pBRDF measurements and modelling* Schott, J.R., Fundamentals of Polarimetric Remote Sensing: Belllingham, Wash., SPIE Press, p. 211-240, at http://dx.doi.org/10.1117/3.817304.ch12.

Gartley, M.G., Schott, J.R., and Brown, S.D., 2008, Micro-scale modeling of contaminant effects on surface optical properties, *in* Shen, S.S., and Lewis, P.E., eds., Imaging Spectrometry XIII, San Diego, Calif., 12-13 August 2008, Proceedings of SPIE Vol. 7086: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 70860H, at http://dx.doi.org/10.1117/12.796428.

Gaulton, R., Hilker, T., Wulder, M.A., Coops, N.C., and Stenhouse, G., 2011, Characterizing stand-replacing disturbance in western Alberta grizzly bear habitat, using a satellite-derived high temporal and spatial resolution change sequence: Forest Ecology and Management, v. 261, no. 4, p. 865-877, at http://dx.doi.org/10.1016/j.foreco.2010.12.020.

Gavilán, P., Berengena, J., and Allen, R.G., 2007, Measuring versus estimating net radiation and soil heat flux—Impact on Penman-Monteith reference ET estimates in semiarid regions: Agricultural Water Management, v. 89, no. 3, p. 275-286, at http://dx.doi.org/10.1016/j.agwat.2007.01.014.

Gentile, A., Pierce, L., Ciraolo, G., Zhang, G., La Loggia, G., and Nemani, R., 2009, Comparison between energy balance and mass balance models for actual evapotranspiration assessment, *in* Neale, C.M.U., and Maltese, A., eds., Remote Sensing for Agriculture, Ecosystems, and Hydrology XI, Berlin, Germany, 1-3 September 2009, Proceedings of SPIE Vol. 7472: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 747212, at http://dx.doi.org/10.1117/12.830229.

Gerace, A., and Schott, J., 2009, The increased potential for the Landsat Data Continuity Mission to contribute to case 2 water quality studies, *in* Butler, J.J., Xiong, X., and Gu, X.F., eds., Earth Observing Systems XIV, San Diego, Calif., 3-5 August 2009, Proceedings of SPIE Vol. 7452: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 74520U, at http://dx.doi.org/10.1117/12.825271.

Gerace, A., and Schott, J., 2008, An increased potential for the Landsat data continuity mission to contribute towater quality studies for inland, case 2 waters, *in* International Geoscience and Remote Sensing Symposium, Boston, Mass., 7-11 July 2008, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. IV379-IV382, at http://dx.doi.org/10.1109/IGARSS.2008.4779737.

Gerace, A., Schott, J., Gartley, M., and Montanaro, M., 2014, An analysis of the side slither on-orbit calibration technique using the DIRSIG model: Remote Sensing, v. 6, no. 11, p. 10523-10545, at http://dx.doi.org/10.3390/rs61110523.

Gerace, A.D., Goodenough, A.A., Montanaro, M., Yang, J., and McCorkel, J.T., 2015, The development of a DIRSIG simulation environment to support instrument trade studies for the SOLARIS sensor, *in* Velez-Reyes, M., and Kruse, F.A., eds., Algorithms and Technologies for Multispectral, Hyperspectral, and Ultraspectral Imagery XXI, Baltimore, Md., 20-23 April 2015, Proceedings of SPIE Vol. 9472: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 947214, at http://dx.doi.org/10.1117/12.2177507.

Ghannam, S., Awadallah, M., Abbott, A.L., and Wynne, R.H., 2014, Multisensor multitemporal data fusion using the wavelet transform, *in* Toth, C., Holm, T., and Jutzi, B., eds., ISPRS Technical Commission I Symposium, Denver, Colo., 17-20 November 2014, The International Archives of Photogrammetry and Remote Sensing, XL-1: Bethesda, Md., International Society for Photogrammetry and Remote Sensing, p. 121-128, at http://dx.doi.org/10.5194/isprsarchives-XL-1-121-2014.

Ghimire, B., Williams, C.A., Masek, J., Gao, F., Wang, Z., Schaaf, C., and He, T., 2014, Global albedo change and radiative cooling from anthropogenic land cover change, 1700 to 2005 based on MODIS, land use harmonization, radiative kernels, and reanalysis: Geophysical Research Letters, v. 41, no. 24, p. 9087-9096, at http://dx.doi.org/10.1002/2014GL061671.

Gibson, G.R., Campbell, J.B., and Wynne, R.H., 2012, Three decades of war and food insecurity in Iraq: Photogrammetric Engineering and Remote Sensing, v. 78, no. 8, p. 885-895, at http://dx.doi.org/10.14358/PERS.78.8.895.

Giglio, L., Csiszar, I., and Justice, C.O., 2006, Global distribution and seasonality of active fires as observed with the Terra and Aqua Moderate Resolution Imaging Spectroradiometer (MODIS) sensors: Journal of Geophysical Research G—Biogeosciences, v. 111, no. 2, citation number G02016, at http://dx.doi.org/10.1029/2005JG000142.

Giglio, L., Csiszar, I., Restás, Á., Morisette, J.T., Schroeder, W., Morton, D., and Justice, C.O., 2008, Active fire detection and characterization with the advanced spaceborne thermal emission and

reflection radiometer (ASTER): Remote Sensing of Environment, v. 112, no. 6, p. 3055-3063, at http://dx.doi.org/10.1016/j.rse.2008.03.003.

Giglio, L., Loboda, T., Roy, D.P., Quayle, B., and Justice, C.O., 2009, An active-fire based burned area mapping algorithm for the MODIS sensor: Remote Sensing of Environment, v. 113, no. 2, p. 408-420, at http://dx.doi.org/10.1016/j.rse.2008.10.006.

Gillanders, S.N., Coops, N.C., Wulder, M.A., Gergel, S.E., and Nelson, T., 2008, Multitemporal remote sensing of landscape dynamics and pattern change—Describing natural and anthropogenic trends: Progress in Physical Geography, v. 32, no. 5, p. 503-528, at http://dx.doi.org/10.1177/0309133308098363.

Gillanders, S.N., Coops, N.C., Wulder, M.A., and Goodwin, N.R., 2008, Application of Landsat satellite imagery to monitor land-cover changes at the Athabasca Oil Sands, Alberta, Canada: Canadian Geographer, v. 52, no. 4, p. 466-485, at http://dx.doi.org/10.1111/j.1541-0064.2008.00225.x.

Giri, C., Ochieng, E., Tieszen, L.L., Zhu, Z., Singh, A., Loveland, T., Masek, J., and Duke, N., 2011, Status and distribution of mangrove forests of the world using earth observation satellite data: Global Ecology and Biogeography, v. 20, no. 1, p. 154-159, at http://dx.doi.org/10.1111/j.1466-8238.2010.00584.x.

Giri, C., Pengra, B., Long, J., and Loveland, T.R., 2013, Next generation of global land cover characterization, mapping, and monitoring: International Journal of Applied Earth Observation and Geoinformation, v. 25, no. 1, p. 30-37, at http://dx.doi.org/10.1016/j.jag.2013.03.005.

Gitelson, A.A., Peng, Y., Masek, J.G., Rundquist, D.C., Verma, S., Suyker, A., Baker, J.M., Hatfield, J.L., and Meyers, T., 2012, Remote estimation of crop gross primary production with Landsat data: Remote Sensing of Environment, v. 121, p. 404-414, at http://dx.doi.org/10.1016/j.rse.2012.02.017.

Gitelson, A.A., Viña, A., Masek, J.G., Verma, S.B., and Suyker, A.E., 2008, Synoptic monitoring of gross primary productivity of maize using Landsat data: IEEE Geoscience and Remote Sensing Letters, v. 5, no. 2, p. 133-137, at http://dx.doi.org/10.1109/LGRS.2008.915598.

Glasser, N.F., Kulessa, B., Luckman, A., Jansen, D., King, E.C., Sammonds, P.R., Scambos, T.A., and Jezek, K.C., 2009, Surface structure and stability of the Larsen C ice shelf, Antarctic Peninsula: Journal of Glaciology, v. 55, no. 191, p. 400-410, at http://dx.doi.org/10.3189/002214309788816597.

Glasser, N.F., and Scambos, T.A., 2008, A structural glaciological analysis of the 2002 Larsen B ice-shelf collapse: Journal of Glaciology, v. 54, no. 184, p. 3-16, at http://dx.doi.org/10.3189/002214308784409017.

Glasser, N.F., Scambos, T.A., Bohlander, J., Truffer, M., Pettit, E., and Davies, B.J., 2011, From ice-shelf tributary to tidewater glacier—Continued rapid recession, acceleration and thinning of Röhss Glacier following the 1995 collapse of the Prince Gustav Ice Shelf, Antarctic Peninsula: Journal of Glaciology, v. 57, no. 203, p. 397-406, at http://dx.doi.org/10.3189/002214311796905578.

Gobron, N., Belward, A., Pinty, B., and Knorr, W., 2010, Monitoring biosphere vegetation 1998-2009: Geophysical Research Letters, v. 37, no. 15, citation number L15402, at http://dx.doi.org/10.1029/2010GL043870.

Gobron, N., Jung, M., Belward, A., Mélin, F., Pinty, B., Robustelli, M., and Taberner, M., 2009, Overview and relevance of the ESA-JRC FAPAR products for land applications, *in* Sustaining the millennium development goals, International Symposium on Remote Sensing of Environment, 33rd, Stresa,

Italy, 4-9 May 2009, Proceedings: Tuscon, Ariz., International Center for Remote Sensing of Environment, p. 21-24.

Gobron, N., Pinty, B., Aussedat, O., Chen, J.M., Cohen, W.B., Fensholt, R., Gond, V., Huemmrich, K.F., Lavergne, T., et al., 2006, Evaluation of fraction of absorbed photosynthetically active radiation products for different canopy radiation transfer regimes—Methodology and results using Joint Research Center products derived from SeaWiFS against ground-based estimations: Journal of Geophysical Research D—Atmospheres, v. 111, no. 13, citation number D13110, at http://dx.doi.org/10.1029/2005JD006511.

Gómez, C., White, J.C., and Wulder, M.A., 2011, Characterizing the state and processes of change in a dynamic forest environment using hierarchical spatio-temporal segmentation: Remote Sensing of Environment, v. 115, no. 7, p. 1665-1679, at http://dx.doi.org/10.1016/j.rse.2011.02.025.

Gómez, C., White, J.C., and Wulder, M.A., 2016, Optical remotely sensed time series data for land cover classification—A review: ISPRS Journal of Photogrammetry and Remote Sensing, v. 116, p. 55-72, at http://dx.doi.org/10.1016/j.isprsjprs.2016.03.008.

Gómez, C., White, J.C., Wulder, M.A., and Alejandro, P., 2014, Historical forest biomass dynamics modelled with Landsat spectral trajectories: ISPRS Journal of Photogrammetry and Remote Sensing, v. 93, p. 14-28, at http://dx.doi.org/10.1016/j.isprsjprs.2014.03.008.

Gómez, C., White, J.C., Wulder, M.A., and Alejandro, P., 2015, Integrated object-based spatiotemporal characterization of forest change from an annual time series of Landsat image composites: Canadian Journal of Remote Sensing, v. 41, no. 4, p. 271-292, at http://dx.doi.org/10.1080/07038992.2015.1089162.

Gómez, C., Wulder, M.A., Dawson, A.G., Ritchie, W., and Green, D.R., 2014, Shoreline change and coastal vulnerability characterization with Landsat imagery—a case study in the Outer Hebrides, Scotland: Scottish Geographical Journal, v. 130, no. 4, p. 279-299, at http://dx.doi.org/10.1080/14702541.2014.923579.

Gómez, C., Wulder, M.A., Montes, F., and Delgado, J.A., 2011, Forest structural diversity characterization in Mediterranean pines of central Spain with quickbird-2 imagery and canonical correlation analysis: Canadian Journal of Remote Sensing, v. 37, no. 6, p. 628-642, at http://dx.doi.org/10.5589/m12-005.

Gómez, C., Wulder, M.A., Montes, F., and Delgado, J.A., 2012, Modeling forest structural parameters in the mediterranean pines of central Spain using QuickBird-2 imagery and classification and regression tree analysis (CART): Remote Sensing, v. 4, no. 1, p. 135-159, at http://dx.doi.org/10.3390/rs4010135.

Gómez, C., Wulder, M.A., White, J.C., Montes, F., and Delgado, J.A., 2012, Characterizing 25 years of change in the area, distribution, and carbon stock of Mediterranean pines in central Spain: International Journal of Remote Sensing, v. 33, no. 17, p. 5546-5573, at http://dx.doi.org/10.1080/01431161.2012.663115.

Gonzalez-Dugo, M.P., Neale, C.M.U., Mateos, L., Kustas, W.P., Prueger, J.H., Anderson, M.C., and Li, F., 2009, A comparison of operational remote sensing-based models for estimating crop evapotranspiration: Agricultural and Forest Meteorology, v. 149, no. 11, p. 1843-1853, at http://dx.doi.org/10.1016/j.agrformet.2009.06.012.

Goodenough, A., Raqueño, R., Bellandi, M., Brown, S., and Schott, J., 2006, A flexible hyperspectral simulation tool for complex littoral environments, *in* DeWeert, M.J., Saito, T.T., and Guthmuller,

H.L., eds., Photonics for Port and Harbor Security II, Orlando, Fla., 18-19 April 2006, Proceedings of SPIE Vol. 6204: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 62040F, at http://dx.doi.org/10.1117/12.665827.

Goodwin, N.R., Coops, N.C., Wulder, M.A., Gillanders, S., Schroeder, T.A., and Nelson, T., 2008, Estimation of insect infestation dynamics using a temporal sequence of Landsat data: Remote Sensing of Environment, v. 112, no. 9, p. 3680-3689, at http://dx.doi.org/10.1016/j.rse.2008.05.005.

Goodwin, N.R., Magnussen, S., Coops, N.C., and Wulder, M.A., 2010, Curve fitting of time-series Landsat imagery for characterizing a mountain pine beetle infestation: International Journal of Remote Sensing, v. 31, no. 12, p. 3263-3271, at http://dx.doi.org/10.1080/01431160903186277.

Gopalakrishnan, R., Bala, G., Jayaraman, M., Cao, L., Nemani, R., and Ravindranath, N.H., 2011, Sensitivity of terrestrial water and energy budgets to CO 2-physiological forcing—An investigation using an offline land model: Environmental Research Letters, v. 6, no. 4, article number 044013, at http://dx.doi.org/10.1088/1748-9326/6/4/044013.

Gopalakrishnan, R., Thomas, V.A., Coulston, J.W., and Wynne, R.H., 2015, Generation of wall-to-wall canopy height maps using heterogeneous lidar datasets over a large region, *in* Imaging Geospatial Technology Forum, IGTF - ASPRS, Annual Conference, Tampa, Fla., 4-8 May 2015, Proceedings: Bethesda, Md., American Society for Photogrammetry and Remote Sensing, p. 60-64, at http://www.asprs.org/a/publications/proceedings/IGTF2015/2C%5BLD11%5D-paper.pdf.

Gopalakrishnan, R., Thomas, V.A., Coulston, J.W., and Wynne, R.H., 2015, Prediction of canopy heights over a large region using heterogeneous lidar datasets—Efficacy and challenges: Remote Sensing, v. 7, no. 9, p. 11036-11060, at http://dx.doi.org/10.3390/rs70911036.

Goward, S., Arvidson, T., Williams, D., Faundeen, J., Irons, J., and Franks, S., 2006, Historical record of Landsat global coverage—Mission operations, NSLRSDA, and international cooperator stations: Photogrammetric Engineering and Remote Sensing, v. 72, no. 10, p. 1155-1169, at http://dx.doi.org/10.14358/PERS.72.10.1155.

Goward, S.N., Chander, G., Pagnutti, M., Marx, A., Ryan, R., Thomas, N., and Tetrault, R., 2012, Complementarity of ResourceSat-1 AWiFS and Landsat TM/ETM+ sensors: Remote Sensing of Environment, v. 123, p. 41-56, at http://dx.doi.org/10.1016/j.rse.2012.03.002.

Goward, S.N., Masek, J.G., Cohen, W., Moisen, G., Collatz, G.J., Healey, S., Houghton, R.A., Huang, C., Kennedy, R., et al., 2008, Forest disturbance and North American carbon flux: Eos, v. 89, no. 11, p. 105-106, at http://dx.doi.org/10.1029/2008EO110001.

Goward, S.N., Underwood, L.W., Fearon, M.G., Fletcher, R., Garvin, J.B., Hurtt, G., Jensen, J., Nolan, M., Holekamp, K., et al., 2008, NASA's earth science use of commercially available remote sensing datasets: Photogrammetric Engineering and Remote Sensing, v. 74, no. 2, p. 139-146, at http://www.asprs.org/Photogrammetric-Engineering-and-Remote-Sensing/PE-RS-Journals.html.

Gralewicz, N.J., Nelson, T.A., and Wulder, M.A., 2012, Factors influencing national scale wildfire susceptibility in Canada: Forest Ecology and Management, v. 265, p. 20-29, at http://dx.doi.org/10.1016/j.foreco.2011.10.031.

Gralewicz, N.J., Nelson, T.A., and Wulder, M.A., 2012, Spatial and temporal patterns of wildfire ignitions in Canada from 1980 to 2006: International Journal of Wildland Fire, v. 21, no. 3, p. 230-242, at http://dx.doi.org/10.1071/WF10095.

Grasso, L., Hillger, D.W., Schaaf, C.B., Wang, Z., Brummer, R., and Demaria, R., 2013, Use of MODIS 16-day albedos in generating GOES-R advanced baseline imager imagery: Journal of Applied Remote Sensing, v. 7, no. 1, at http://dx.doi.org/10.1117/1.JRS.7.073584.

Grégoire, J.M., Eva, H.D., Belward, A.S., Palumbo, I., Simonetti, D., and Brink, A., 2013, Effect of land-cover change on Africa's burnt area: International Journal of Wildland Fire, v. 22, no. 2, p. 107-120, at http://dx.doi.org/10.1071/WF11142.

Griffiths, P., and Hostert, P., 2015, Forest cover dynamics during massive ownership changes—Annual disturbance mapping using annual Landsat time-series, Remote Sensing and Digital Image Processing, v. 22, p. 307-322, at http://dx.doi.org/10.1007/978-3-319-15967-6_15.

Griffiths, P., Hostert, P., Gruebner, O., and der Linden, S.v., 2010, Mapping megacity growth with multi-sensor data: Remote Sensing of Environment, v. 114, no. 2, p. 426-439, at http://dx.doi.org/10.1016/j.rse.2009.09.012.

Griffiths, P., Kuemmerle, T., Baumann, M., Radeloff, V.C., Abrudan, I.V., Lieskovsky, J., Munteanu, C., Ostapowicz, K., and Hostert, P., 2014, Forest disturbances, forest recovery, and changes in forest types across the Carpathian ecoregion from 1985 to 2010 based on Landsat image composites: Remote Sensing of Environment, v. 151, p. 72-88, at http://dx.doi.org/10.1016/j.rse.2013.04.022.

Griffiths, P., Kuemmerle, T., Kennedy, R.E., Abrudan, I.V., Knorn, J., and Hostert, P., 2012, Using annual time-series of Landsat images to assess the effects of forest restitution in post-socialist Romania: Remote Sensing of Environment, v. 118, p. 199-214, at http://dx.doi.org/10.1016/j.rse.2011.11.006.

Griffiths, P., Müller, D., Kuemmerle, T., and Hostert, P., 2013, Agricultural land change in the Carpathian ecoregion after the breakdown of socialism and expansion of the European Union: Environmental Research Letters, v. 8, no. 4, article number 045024, at http://dx.doi.org/10.1088/1748-9326/8/4/045024.

Griffiths, P., Van Der Linden, S., Kuemmerle, T., and Hostert, P., 2013, Erratum—A pixel-based Landsat compositing algorithm for large area land cover mapping (IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing): IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 6, no. 5, p. 2088-2101, at http://dx.doi.org/10.1109/JSTARS.2012.2228167.

Groeneveld, D.P., Huntington, J.L., and Barz, D.D., 2010, Floating brine crusts, reduction of evaporation and possible replacement of fresh water to control dust from Owens Lake bed, California: Journal of Hydrology, v. 392, no. 3-4, p. 211-218, at http://dx.doi.org/10.1016/j.jhydrol.2010.08.010.

Grogan, K., Pflugmacher, D., Hostert, P., Kennedy, R., and Fensholt, R., 2015, Cross-border forest disturbance and the role of natural rubber in mainland Southeast Asia using annual Landsat time series: Remote Sensing of Environment, v. 169, p. 438-453, at http://dx.doi.org/10.1016/j.rse.2015.03.001.

Groot, A., Cortini, F., and Wulder, M.A., 2015, Crown-fibre attribute relationships for enhanced forest inventory—Progress and prospects: Forestry Chronicle, v. 91, no. 3, p. 266-279, at http://dx.doi.org/10.5558/tfc2015-048.

Gross, J.E., Nemani, R.R., Turner, W., and Melton, F., 2006, Remote sensing for the national parks: Park Science, v. 24, no. 1, p. 30-36, at http://www.nature.nps.gov/ParkScience/archive/PDF/Article_PDFs/ParkScience24(1)Summer2006_30-36_Gross_et_al_2519.pdf.

Gruebner, O., Khan, M.M.H., Lautenbach, S., Müller, D., Kraemer, A., Lakes, T., and Hostert, P., 2011, A spatial epidemiological analysis of self-rated mental health in the slums of Dhaka: International Journal of Health Geographics, v. 10, no. 36, p. 1-15, at http://dx.doi.org/10.1186/1476-072X-10-36.

Gruebner, O., Khan, M.M.H., Lautenbach, S., Müller, D., Krämer, A., Lakes, T., and Hostert, P., 2012, Mental health in the slums of Dhaka—A geoepidemiological study: BMC Public Health, v. 12, no. 177, p. 1-14, at http://dx.doi.org/10.1186/1471-2458-12-177.

Gu, L., Hanson, P.J., Post, W.M., Kaiser, D.P., Yang, B., Nemani, R., Pallardy, S.G., and Meyers, T., 2008, The 2007 eastern US spring freeze—Increased cold damage in a warming world?: BioScience, v. 58, no. 3, p. 253-262, at http://dx.doi.org/10.1641/B580311.

Guanter, L., Kaufmann, H., Segl, K., Foerster, S., Rogass, C., Chabrillat, S., Kuester, T., Hollstein, A., Rossner, G., et al., 2015, The EnMAP spaceborne imaging spectroscopy mission for earth observation: Remote Sensing, v. 7, no. 7, p. 8830-8857, at http://dx.doi.org/10.3390/rs70708830.

Gumma, K.M., van Rooijen, D., Nelson, A., Thenkabail, P.S., Aakuraju, R.V., and Amerasinghe, P., 2011, Expansion of urban area and wastewater irrigated rice area in Hyderabad, India: Irrigation and Drainage Systems, v. 25, no. 3, p. 135-149, at http://dx.doi.org/10.1007/s10795-011-9117-y.

Gumma, M., Thenkabail, P.S., Fujii, H., and Namara, R., 2009, Spatial models for selecting the most suitable areas of rice cultivation in the Inland valley wetlands of Ghana using remote sensing and geographic information systems: Journal of Applied Remote Sensing, v. 3, no. 1, citation identifier 033537, at http://dx.doi.org/10.1117/1.3182847.

Gumma, M.K., Nelson, A., Thenkabail, P.S., and Singh, A.N., 2011, Mapping rice areas of South Asia using MODIS multitemporal data: Journal of Applied Remote Sensing, v. 5, no. 1, citation identifier 053547, at http://dx.doi.org/10.1117/1.3619838.

Gumma, M.K., Thenkabail, P.S., Hideto, F., Nelson, A., Dheeravath, V., Busia, D., and Rala, A., 2011, Mapping irrigated areas of Ghana using fusion of 30 m and 250 m resolution remote-sensing data: Remote Sensing, v. 3, no. 4, p. 816-835, at http://dx.doi.org/10.3390/rs3040816.

Gumma, M.K., Thenkabail, P.S., Maunahan, A., Islam, S., and Nelson, A., 2014, Mapping seasonal rice cropland extent and area in the high cropping intensity environment of Bangladesh using MODIS 500m data for the year 2010: ISPRS Journal of Photogrammetry and Remote Sensing, v. 91, p. 98-113, at http://dx.doi.org/10.1016/j.isprsjprs.2014.02.007.

Gumma, M.K., Thenkabail, P.S., Muralikrishna, I.V., Velpuri, M.N., Gangadhararao, P.T., Dheeravath, V., Biradar, C.M., Nalan, S.A., and Gaur, A., 2011, Changes in agricultural cropland areas between a water-surplus year and a water-deficit year impacting food security, determined using MODIS 250 m time-series data and spectral matching techniques, in the Krishna river basin (India): International Journal of Remote Sensing, v. 32, no. 12, p. 3495-3520, at http://dx.doi.org/10.1080/01431161003749485.

Gumma, M.K., Thenkabail, P.S., and Velpuri, N.M., 2009, Vegetation phenology to partition groundwater from surface water-irrigated areas using MODIS 250-m time series data for the Krishna River Basin, India, *in* Bloschl, G., ed., Improving integrated surface and groundwater resources management in a vulnerable and changing world, Symposium JS.3 at the Joint Convention of the International Association of Hydrological Sciences, IAHS and the International Association of Hydrogeologists, IAH, Hyderabad, India, 6-12 September 2009, Proceedings: Wallingford, UK, IAHS Press, p. 271-281.

Gutman, G., Byrnes, R., Masek, J., Covington, S., Justice, C., Franks, S., and Headley, R., 2008, Towards monitoring land-cover and land-use changes at a global scale—The global land survey 2005: Photogrammetric Engineering and Remote Sensing, v. 74, no. 1, p. 6-10, at http://www.asprs.org/Photogrammetric-Engineering-and-Remote-Sensing/PE-RS-Journals.html.

Gutman, G., Huang, C., Chander, G., Noojipady, P., and Masek, J.G., 2013, Assessment of the NASA-USGS Global Land Survey (GLS) datasets: Remote Sensing of Environment, v. 134, p. 249-265, at http://dx.doi.org/10.1016/j.rse.2013.02.026.

Gutman, G., and Justice, C.O., 2011, Summary and outstanding scientific challenges for land-cover and land-use research in the arctic region, *in* Gutman, G., and Reissell, A., eds., Eurasian arctic land cover and land use in a changing climate: Dordrecht, Netherlands, Springer, p. 291-300, at http://dx.doi.org/10.1007/978-90-481-9118-5_12.

Gutman, G., and Masek, J.G., 2012, Long-term time series of the Earth's land-surface observations from space: International Journal of Remote Sensing, v. 33, no. 15, p. 4700-4719, at http://dx.doi.org/10.1080/01431161.2011.638341.

Guzinski, R., Anderson, M.C., Kustas, W.P., Nieto, H., and Sandholt, I., 2013, Using a thermal-based two source energy balance model with time-differencing to estimate surface energy fluxes with day-night MODIS observations: Hydrology and Earth System Sciences, v. 17, no. 7, p. 2809-2825, at http://dx.doi.org/10.5194/hess-17-2809-2013.

Hain, C.R., Crow, W.T., Anderson, M.C., and Mecikalski, J.R., 2012, An ensemble Kalman filter dual assimilation of thermal infrared and microwave satellite observations of soil moisture into the Noah land surface model: Water Resources Research, v. 48, no. 11, citation number W11517, at http://dx.doi.org/10.1029/2011WR011268.

Hain, C.R., Crow, W.T., Anderson, M.C., and Tugrul Yilmaz, M., 2015, Diagnosing neglected soil moisture source-sink processes via a thermal infrared-based two-source energy balance model: Journal of Hydrometeorology, v. 16, no. 3, p. 1070-1086, at http://dx.doi.org/10.1175/JHM-D-14-0017.1.

Hain, C.R., Crow, W.T., Mecikalski, J.R., Anderson, M.C., and Holmes, T., 2011, An intercomparison of available soil moisture estimates from thermal infrared and passive microwave remote sensing and land surface modeling: Journal of Geophysical Research D—Atmospheres, v. 116, no. 15, citation number D15107, at http://dx.doi.org/10.1029/2011JD015633.

Hain, C.R., Mecikalski, J.R., and Anderson, M.C., 2009, Retrieval of an available water-based soil moisture proxy from thermal infrared remote sensing. Part I—Methodology and validation: Journal of Hydrometeorology, v. 10, no. 3, p. 665-683, at http://dx.doi.org/10.1175/2008JHM1024.1.

Hale, R.C., Gallo, K.P., and Loveland, T.R., 2008, Influences of specific land use/land cover conversions on climatological normals of near-surface temperature: Journal of Geophysical Research D—Atmospheres, v. 113, no. 14, citation number D14113, at http://dx.doi.org/10.1029/2007JD009548.

Hale, R.C., Gallo, K.P., Owen, T.W., and Loveland, T.R., 2006, Land use/land cover change effects on temperature trends at U.S. Climate Normals stations: Geophysical Research Letters, v. 33, no. 11, citation number L11703, at http://dx.doi.org/10.1029/2006GL026358.

Hall, D.K., Nghiem, S.V., Schaaf, C.B., DiGirolamo, N.E., and Neumann, G., 2009, Evaluation of surface and near-surface melt characteristics on the Greenland ice sheet using MODIS and QuikSCAT data: Journal of Geophysical Research F—Earth Surface, v. 114, no. 4, citation number F04006, at http://dx.doi.org/10.1029/2009JF001287.

Hall, F., Masek, J.G., and Collatz, G.J., 2006, Evaluation of ISLSCP Initiative II FASIR and GIMMS NDVI products and implications for carbon cycle science: Journal of Geophysical Research D—Atmospheres, v. 111, no. 22, citation number D22S08, at http://dx.doi.org/10.1029/2006JD007438.

Han, E., Crow, W.T., Hain, C.R., and Anderson, M.C., 2015, On the use of a water balance to evaluate interannual terrestrial ET variability: Journal of Hydrometeorology, v. 16, no. 3, p. 1102-1108, at http://dx.doi.org/10.1175/JHM-D-14-0175.1.

Han, T., Wulder, M.A., White, J.C., Coops, N.C., Alvarez, M.F., and Butson, C., 2007, An efficient protocol to process Landsat images for change detection with tasselled cap transformation: IEEE Geoscience and Remote Sensing Letters, v. 4, no. 1, p. 147-151, at http://dx.doi.org/10.1109/LGRS.2006.887066.

Hansen, M.C., Egorov, A., Potapov, P.V., Stehman, S.V., Tyukavina, A., Turubanova, S.A., Roy, D.P., Goetz, S.J., Loveland, T.R., et al., 2014, Monitoring conterminous United States (CONUS) land cover change with Web-Enabled Landsat Data (WELD): Remote Sensing of Environment, v. 140, p. 466-484, at http://dx.doi.org/10.1016/j.rse.2013.08.014.

Hansen, M.C., Egorov, A., Roy, D.P., Potapov, P., Ju, J., Turubanova, S., Kommareddy, I., and Loveland, T.R., 2011, Continuous fields of land cover for the conterminous United States using Landsat data—First results from the Web-Enabled Landsat Data (WELD) project: Remote Sensing Letters, v. 2, no. 4, p. 279-288, at http://dx.doi.org/10.1080/01431161.2010.519002.

Hansen, M.C., and Loveland, T.R., 2012, A review of large area monitoring of land cover change using Landsat data: Remote Sensing of Environment, v. 122, p. 66-74, at http://dx.doi.org/10.1016/j.rse.2011.08.024.

Hansen, M.C., Potapov, P.V., Moore, R., Hancher, M., Turubanova, S.A., Tyukavina, A., Thau, D., Stehman, S.V., Goetz, S.J., et al., 2013, High-resolution global maps of 21st-century forest cover change: Science, v. 342, no. 6160, p. 850-853, at http://dx.doi.org/10.1126/science.1244693.

Hansen, M.C., Roy, D.P., Lindquist, E., Adusei, B., Justice, C.O., and Altstatt, A., 2008, A method for integrating MODIS and Landsat data for systematic monitoring of forest cover and change in the Congo Basin: Remote Sensing of Environment, v. 112, no. 5, p. 2495-2513, at http://dx.doi.org/10.1016/j.rse.2007.11.012.

Hansen, M.C., Stehman, S.V., Potapov, P.V., Loveland, T.R., Townshend, J.R.G., DeFries, R.S., Pittman, K.W., Arunarwati, B., Stolle, F., et al., 2008, Humid tropical forest clearing from 2000 to 2005 quantified by using multitemporal and multiresolution remotely sensed data: Proceedings of the National Academy of Sciences of the United States of America, v. 105, no. 27, p. 9439-9444, at http://dx.doi.org/10.1073/pnas.0804042105.

Hashimoto, H., Dungan, J.L., White, M.A., Yang, F., Michaelis, A.R., Running, S.W., and Nemani, R.R., 2008, Satellite-based estimation of surface vapor pressure deficits using MODIS land surface temperature data: Remote Sensing of Environment, v. 112, no. 1, p. 142-155, at http://dx.doi.org/10.1016/j.rse.2007.04.016.

Hashimoto, H., Wang, W., Milesi, C., White, M.A., Ganguly, S., Gamo, M., Hirata, R., Myneni, R.B., and Nemani, R.R., 2012, Exploring simple algorithms for estimating gross primary production in forested areas from satellite data: Remote Sensing, v. 4, no. 1, p. 303-326, at http://dx.doi.org/10.3390/rs4010303.

Hashimoto, H., Wang, W., Milesi, C., Xiong, J., Ganguly, S., Zhu, Z., and Nemani, R.R., 2013, Structural uncertainty in model-simulated trends of global gross primary production: Remote Sensing, v. 5, no. 3, p. 1258-1273, at http://dx.doi.org/10.3390/rs5031258.

Haubrock, S.N., Chabrillat, S., Kuhnert, M., Hostert, P., and Kaufmann, H., 2008, Surface soil moisture quantification and validation based on hyperspectral data and field measurements: Journal of Applied Remote Sensing, v. 2, no. 1, citation identifier 023552, at http://dx.doi.org/10.1117/1.3059191.

Haugen, B.D., Scambos, T.A., Pfeffer, W.T., and Anderson, R.S., 2010, Twentieth-century changes in the thickness and extent of Arapaho Glacier, Front Range, Colorado: Arctic, Antarctic, and Alpine Research, v. 42, no. 2, p. 198-209, at http://dx.doi.org/10.1657/1938-4246-42.2.198.

Hayes, D.J., and Cohen, W.B., 2007, Spatial, spectral and temporal patterns of tropical forest cover change as observed with multiple scales of optical satellite data: Remote Sensing of Environment, v. 106, no. 1, p. 1-16, at http://dx.doi.org/10.1016/j.rse.2006.07.002.

Hayes, D.J., Cohen, W.B., Sader, S.A., and Irwin, D.E., 2008, Estimating proportional change in forest cover as a continuous variable from multi-year MODIS data: Remote Sensing of Environment, v. 112, no. 3, p. 735-749, at http://dx.doi.org/10.1016/j.rse.2007.06.003.

He, L., Chen, J.M., Pisek, J., Schaaf, C.B., and Strahler, A.H., 2012, Global clumping index map derived from the MODIS BRDF product: Remote Sensing of Environment, v. 119, p. 118-130, at http://dx.doi.org/10.1016/j.rse.2011.12.008.

He, L., Chen, J.M., Zhang, S., Gomez, G., Pan, Y., McCullough, K., Birdsey, R., and Masek, J.G., 2011, Normalized algorithm for mapping and dating forest disturbances and regrowth for the United States: International Journal of Applied Earth Observation and Geoinformation, v. 13, no. 2, p. 236-245, at http://dx.doi.org/10.1016/j.jag.2010.12.003.

He, T., Liang, S., Yu, Y., Wang, D., Gao, F., and Liu, Q., 2013, Greenland surface albedo changes in July 1981-2012 from satellite observations: Environmental Research Letters, v. 8, no. 4, article number 044043, at http://dx.doi.org/10.1088/1748-9326/8/4/044043.

Healey, N.C., Irmak, A., Arkebauer, T.J., Billesbach, D.P., Lenters, J.D., Hubbard, K.G., Allen, R.G., and Kjaersgaard, J., 2011, Remote sensing and in situ-based estimates of evapotranspiration for subirrigated meadow, dry valley, and upland dune ecosystems in the semi-arid sand hills of Nebraska, USA: Irrigation and Drainage Systems, v. 25, no. 3, p. 151-178, at http://dx.doi.org/10.1007/s10795-011-9118-x.

Healey, S.P., Cohen, W.B., Spies, T.A., Moeur, M., Pflugmacher, D., Whitley, M.G., and Lefsky, M., 2008, The relative impact of harvest and fire upon landscape-level dynamics of older forests—lessons from the Northwest Forest Plan: Ecosystems, v. 11, no. 7, p. 1106-1119, at http://dx.doi.org/10.1007/s10021-008-9182-8.

Healey, S.P., Yang, Z., Cohen, W.B., and Pierce, D.J., 2006, Application of two regression-based methods to estimate the effects of partial harvest on forest structure using Landsat data: Remote Sensing of Environment, v. 101, no. 1, p. 115-126, at http://dx.doi.org/10.1016/j.rse.2005.12.006.

Heinsch, F.A., Zhao, M., Running, S.W., Kimball, J.S., Nemani, R.R., Davis, K.J., Bolstad, P.V., Cook, B.D., Desai, A.R., et al., 2006, Evaluation of remote sensing based terrestrial productivity from MODIS using regional tower eddy flux network observations: IEEE Transactions on Geoscience and Remote Sensing, v. 44, no. 7, p. 1908-1923, at http://dx.doi.org/10.1109/TGRS.2005.853936.

Held, M., Rabe, A., Senf, C., Van Der Linden, S., and Hostert, P., 2015, Analyzing hyperspectral and hypertemporal data by decoupling feature redundancy and feature relevance: IEEE Geoscience and Remote Sensing Letters, v. 12, no. 5, p. 983-987, at http://dx.doi.org/10.1109/LGRS.2014.2371242.

Helder, D., and Mishra, N., 2013, Absolute calibration of optical satellite sensors using Libya 4 pseudo invariant calibration sites, *in* Asian Conference on Remote Sensing, 34th, Bali, Indonesia, 20-24 October 2013, Proceedings: Klong Luang, Thailand, Asian Association on Remote Sensing, p. 898-905, at http://a-a-r-s.org/acrs/index.php/acrs/acrs-overview/proceedings-1?view=publication&task=show&id=1284.

Helder, D., Thome, K., Aaron, D., Leigh, L., Czapla-Myers, J., Leisso, N., Biggar, S., and Anderson, N., 2012, Recent surface reflectance measurement campaigns with emphasis on best practices, SI traceability and uncertainty estimation: Metrologia, v. 49, no. 2, p. S21-S28, at http://dx.doi.org/10.1088/0026-1394/49/2/S21.

Helder, D., Thome, K.J., Mishra, N., Chander, G., Xiong, X., Angal, A., and Choi, T., 2013, Absolute radiometric calibration of Landsat using a pseudo invariant calibration site: IEEE Transactions on Geoscience and Remote Sensing, v. 51, no. 3, p. 1360-1369, at http://dx.doi.org/10.1109/TGRS.2013.2243738.

Helder, D.L., Basnet, B., and Morstad, D.L., 2010, Optimized identification of worldwide radiometric pseudo-invariant calibration sites: Canadian Journal of Remote Sensing, v. 36, no. 5, p. 527-539, at http://dx.doi.org/10.5589/m10-085.

Helder, D.L., Karki, S., Bhatt, R., Micijevic, E., Aaron, D., and Jasinski, B., 2012, Radiometric calibration of the jandsat MSS sensor series: IEEE Transactions on Geoscience and Remote Sensing, v. 50, no. 6, p. 2380-2399, at http://dx.doi.org/10.1109/TGRS.2011.2171351.

Helder, D.L., Malla, R., Mettler, C.J., Markham, B.L., and Micijevic, E., 2012, Landsat 4 thematic mapper calibration update: IEEE Transactions on Geoscience and Remote Sensing, v. 50, no. 6, p. 2400-2408, at http://dx.doi.org/10.1109/TGRS.2011.2171350.

Helder, D.L., Markham, B.L., Thome, K.J., Barsi, J.A., Chander, G., and Malla, R., 2008, Updated radiometric calibration for the Landsat-5 thematic mapper reflective bands: IEEE Transactions on Geoscience and Remote Sensing, v. 46, no. 10, p. 3309-3325, at http://dx.doi.org/10.1109/TGRS.2008.920966.

Helmer, E.H., Brandeis, T.J., Lugo, A.E., and Kennaway, T., 2008, Factors influencing spatial pattern in tropical forest clearance and stand age—Implications for carbon storage and species diversity: Journal of Geophysical Research G—Biogeosciences, v. 113, no. 2, citation number G02S04, at http://dx.doi.org/10.1029/2007JG000568.

Helmer, E.H., Kennaway, T.A., Pedreros, D.H., Clark, M.L., Marcano-Vega, H., Tieszen, L.L., Ruzycki, T.R., Schill, S.R., and Carrington, C.M.S., 2008, Land cover and forest formation distributions for St. Kitts, Nevis, St. Eustatius, Grenada and Barbados from decision tree classification of cloud-cleared satellite imagery: Caribbean Journal of Science, v. 44, no. 2, p. 175-198, at http://www.caribjsci.org/index.html.

Helmer, E.H., Lefsky, M.A., and Roberts, D.A., 2009, Biomass accumulation rates of Amazonian secondary forest and biomass of old-growth forests from Landsat time series and the Geoscience Laser Altimeter System: Journal of Applied Remote Sensing, v. 3, no. 1, citation identifier 033505, at http://dx.doi.org/10.1117/1.3082116.

Helmer, E.H., and Ruefenacht, B., 2007, A comparison of radiometric normalization methods when filling cloud gaps in Landsat imagery: Canadian Journal of Remote Sensing, v. 33, no. 1-4, p. 325-340, at http://dx.doi.org/10.5589/m07-028.

Helmer, E.H., and Ruefenacht, B., 2007, Erratum—A comparison of radiometric normalization methods when filling cloud gaps in Landsat imagery (Canadian Journal of Remote Sensing 33:4 (325-340)): Canadian Journal of Remote Sensing, v. 33, no. 5, p. 457-458, at http://dx.doi.org/10.5589/m07-909.

Helmer, E.H., and Ruefenacht, B., 2006, Erratum—Cloud-free satellite image mosaics with regression trees and histogram matching (Photogrammetric Engineering and Remote Sensing (2005) 71, 9 (1079-1089)): Photogrammetric Engineering and Remote Sensing, v. 72, no. 6, p. 622, at http://www.asprs.org/Photogrammetric-Engineering-and-Remote-Sensing/PE-RS-Journals.html.

Helmer, E.H., Ruzycki, T.S., Benner, J., Voggesser, S.M., Scobie, B.P., Park, C., Fanning, D.W., and Ramnarine, S., 2012, Detailed maps of tropical forest types are within reach—Forest tree communities for Trinidad and Tobago mapped with multiseason Landsat and multiseason fine-resolution imagery: Forest Ecology and Management, v. 279, p. 147-166, at http://dx.doi.org/10.1016/j.foreco.2012.05.016.

Helmer, E.H., Ruzycki, T.S., Wunderle, J.M., Vogesser, S., Ruefenacht, B., Kwit, C., Brandeis, T.J., and Ewert, D.N., 2010, Mapping tropical dry forest height, foliage height profiles and disturbance type and age with a time series of cloud-cleared Landsat and ALI image mosaics to characterize avian habitat: Remote Sensing of Environment, v. 114, no. 11, p. 2457-2473, at http://dx.doi.org/10.1016/j.rse.2010.05.021.

Hély, C., Caylor, K.K., Dowty, P., Alleaume, S., Swap, R.J., Shugart, H.H., and Justice, C.O., 2007, A temporally explicit production efficiency model for fuel load allocation in southern Africa: Ecosystems, v. 10, no. 7, p. 1116-1132, at http://dx.doi.org/10.1007/s10021-007-9082-3.

Hermosilla, T., Wulder, M.A., White, J.C., Coops, N.C., and Hobart, G.W., 2015, Regional detection, characterization, and attribution of annual forest change from 1984 to 2012 using Landsat-derived time-series metrics: Remote Sensing of Environment, v. 170, p. 121-132, at http://dx.doi.org/10.1016/j.rse.2015.09.004.

Hermosilla, T., Wulder, M.A., White, J.C., Coops, N.C., Hobart, G.W., and Campbell, L.B., 2016, Mass data processing of time series Landsat imagery—Pixels to data products for forest monitoring: International Journal of Digital Earth, p. 1-20, at http://dx.doi.org/10.1080/17538947.2016.1187673.

Herold, M., Mayaux, P., Woodcock, C.E., Baccini, A., and Schmullius, C., 2008, Some challenges in global land cover mapping—An assessment of agreement and accuracy in existing 1 km datasets: Remote Sensing of Environment, v. 112, no. 5, p. 2538-2556, at http://dx.doi.org/10.1016/j.rse.2007.11.013.

Herold, M., Woodcock, C., Stehman, S., Baret, F., Wulder, M.A., and Schmullius, C., 2009, The GOFC-GOLD/CEOS land cover harmonization and validation initiative—Technical design and implementation framework, *in* Sustaining the millennium development goals, International Symposium on Remote Sensing of Environment, 33rd, Stresa, Italy, 4-8 May 2009, Proceedings: Tuscon, Ariz., International Center for Remote Sensing of Environment, p. 396-399.

Herold, M., Woodcock, C.E., Di Gregorio, A., Mayaux, P., Belward, A.S., Latham, J., and Schmullius, C.C., 2006, A joint initiative for harmonization and validation of land cover datasets: IEEE Transactions on Geoscience and Remote Sensing, v. 44, no. 7, p. 1719-1727, at http://dx.doi.org/10.1109/TGRS.2006.871219.

Herold, M., Woodcock, C.E., Loveland, T.R., Townshend, J., Brady, M., Steenmans, C., and Schmullius, C.C., 2008, Land-cover observations as part of a global earth observation system of systems (GEOSS)—Progress, activities, and prospects: IEEE Systems Journal, v. 2, no. 3, p. 414-423, at http://dx.doi.org/10.1109/JSYST.2008.925983.

Heward, H., Smith, A.M.S., Roy, D.P., Tinkham, W.T., Hoffman, C.M., Morgan, P., and Lannom, K.O., 2013, Is burn severity related to fire intensity? Observations from landscape scale remote sensing: International Journal of Wildland Fire, v. 22, no. 7, p. 910-918, at http://dx.doi.org/10.1071/WF12087.

Hicke, J.A., Allen, C.D., Desai, A.R., Dietze, M.C., Hall, R.J., Hogg, E.H.T., Kashian, D.M., Moore, D., Raffa, K.F., et al., 2012, Effects of biotic disturbances on forest carbon cycling in the United States and Canada: Global Change Biology, v. 18, no. 1, p. 7-34, at http://dx.doi.org/10.1111/j.1365-2486.2011.02543.x.

Hilker, T., Coops, N.C., Coggins, S.B., Wulder, M.A., Brownc, M., Black, T.A., Nesic, Z., and Lessard, D., 2009, Detection of foliage conditions and disturbance from multi-angular high spectral resolution remote sensing: Remote Sensing of Environment, v. 113, no. 2, p. 421-434, at http://dx.doi.org/10.1016/j.rse.2008.10.003.

Hilker, T., Coops, N.C., Culvenor, D.S., Newnham, G., Wulder, M.A., Bater, C.W., and Siggins, A., 2012, A simple technique for co-registration of terrestrial LiDAR observations for forestry applications: Remote Sensing Letters, v. 3, no. 3, p. 239-247, at http://dx.doi.org/10.1080/01431161.2011.565815.

Hilker, T., Coops, N.C., Gaulton, R., Wulder, M.A., Cranston, J., and Stenhouse, G., 2011, Biweekly disturbance capture and attribution—Case study in western Alberta grizzly bear habitat: Journal of Applied Remote Sensing, v. 5, no. 1, citation identifier 053568, at http://dx.doi.org/10.1117/1.3664342.

Hilker, T., Coops, N.C., Hall, F.G., Andrew Black, T., Chen, B., Krishnan, P., Wulder, M.A., Seilers, P.J., Middleton, E.M., et al., 2008, A modeling approach for upscaling gross ecosystem production to the landscape scale using remote sensing data: Journal of Geophysical Research G—Biogeosciences, v. 113, no. 3, citation number G03006, at http://dx.doi.org/10.1029/2007JG000666.

Hilker, T., Coops, N.C., Hall, F.G., Black, T.A., Wulder, M.A., Nesic, Z., and Krishnan, P., 2008, Separating physiologically and directionally induced changes in PRI using BRDF models: Remote Sensing of Environment, v. 112, no. 6, p. 2777-2788, at http://dx.doi.org/10.1016/j.rse.2008.01.011.

Hilker, T., Coops, N.C., Hall, F.G., Nichol, C.J., Lyapustin, A., Black, T.A., Wulder, M.A., Leuning, R., Barr, A., et al., 2011, Inferring terrestrial photosynthetic light use efficiency of temperate ecosystems from space: Journal of Geophysical Research G—Biogeosciences, v. 116, no. 3, citation number G03014, at http://dx.doi.org/10.1029/2011JG001692.

Hilker, T., Coops, N.C., Nesic, Z., Wulder, M.A., and Black, A.T., 2007, Instrumentation and approach for unattended year round tower based measurements of spectral reflectance: Computers and Electronics in Agriculture, v. 56, no. 1, p. 72-84, at http://dx.doi.org/10.1016/j.compag.2007.01.003.

Hilker, T., Coops, N.C., Newnham, G.J., van Leeuwen, M., Wulder, M.A., Stewart, J., and Culvenor, D.S., 2012, Comparison of terrestrial and airborne LiDAR in describing stand structure of a thinned lodgepole pine forest: Journal of Forestry, v. 110, no. 2, p. 97-104, at http://dx.doi.org/10.5849/jof.11-003.

Hilker, T., Coops, N.C., Wulder, M.A., Black, T.A., and Guy, R.D., 2008, The use of remote sensing in light use efficiency based models of gross primary production—A review of current status and future

requirements: Science of the Total Environment, v. 404, no. 2-3, p. 411-423, at http://dx.doi.org/10.1016/j.scitotenv.2007.11.007.

Hilker, T., Frazer, G.W., Coops, N.C., Wulder, M.A., Newnham, G.J., Stewart, J.D., van Leeuwen, M., and Culvenor, D.S., 2013, Prediction of wood fiber attributes from LiDAR-derived forest canopy indicators: Forest Science, v. 59, no. 2, p. 231-242, at http://dx.doi.org/10.5849/forsci.11-074.

Hilker, T., Hall, F.G., Coops, N.C., Lyapustin, A., Wang, Y., Nesic, Z., Grant, N., Black, T.A., Wulder, M.A., et al., 2010, Remote sensing of photosynthetic light-use efficiency across two forested biomes—Spatial scaling: Remote Sensing of Environment, v. 114, no. 12, p. 2863-2874, at http://dx.doi.org/10.1016/j.rse.2010.07.004.

Hilker, T., Lepine, L., Coops, N.C., Jassal, R.S., Black, T.A., Wulder, M.A., Ollinger, S., Tsui, O., and Day, M., 2012, Assessing the impact of N-fertilization on biochemical composition and biomass of a Douglas-fir canopy—A remote sensing approach: Agricultural and Forest Meteorology, v. 153, p. 124-133, at http://dx.doi.org/10.1016/j.agrformet.2011.03.014.

Hilker, T., van Leeuwen, M., Coops, N.C., Wulder, M.A., Newnham, G.J., Jupp, D.L.B., and Culvenor, D.S., 2010, Comparing canopy metrics derived from terrestrial and airborne laser scanning in a Douglas-fir dominated forest stand: Trees - Structure and Function, v. 24, no. 5, p. 819-832, at http://dx.doi.org/10.1007/s00468-010-0452-7.

Hilker, T., Wulder, M.A., and Coops, N.C., 2008, Update of forest inventory data with lidar and high spatial resolution satellite imagery: Canadian Journal of Remote Sensing, v. 34, no. 1-2, p. 5-12, at http://dx.doi.org/10.5589/m08-004.

Hilker, T., Wulder, M.A., Coops, N.C., Linke, J., McDermid, G., Masek, J.G., Gao, F., and White, J.C., 2009, A new data fusion model for high spatial- and temporal-resolution mapping of forest disturbance based on Landsat and MODIS: Remote Sensing of Environment, v. 113, no. 8, p. 1613-1627, at http://dx.doi.org/10.1016/j.rse.2009.03.007.

Hilker, T., Wulder, M.A., Coops, N.C., Seitz, N., White, J.C., Gao, F., Masek, J.G., and Stenhouse, G., 2009, Generation of dense time series synthetic Landsat data through data blending with MODIS using a spatial and temporal adaptive reflectance fusion model: Remote Sensing of Environment, v. 113, no. 9, p. 1988-1999, at http://dx.doi.org/10.1016/j.rse.2009.05.011.

Hill, M.J., Averill, C., Jiao, Z., Schaaf, C.B., and Armston, J.D., 2008, Relationship of MISR RPV parameters and MODIS BRDF shape indicators to surface vegetation patterns in an Australian tropical savanna: Canadian Journal of Remote Sensing, v. 34, no. Suppl. 2, p. S247-S267, at http://dx.doi.org/10.5589/m08-042.

Hill, M.J., Román, M.O., and Schaaf, C.B., 2012, Dynamics of vegetation indices in tropical and subtropical savannas defined by ecoregions and Moderate Resolution Imaging Spectroradiometer (MODIS) land cover: Geocarto International, v. 27, no. 2, p. 153-191, at http://dx.doi.org/10.1080/10106049.2011.626529.

Hill, M.J., Román, M.O., Schaaf, C.B., Hutley, L., Brannstrom, C., Etter, A., and Hanan, N.P., 2011, Characterizing vegetation cover in global savannas with an annual foliage clumping index derived from the MODIS BRDF product: Remote Sensing of Environment, v. 115, no. 8, p. 2008-2024, at http://dx.doi.org/10.1016/j.rse.2011.04.003.

Hill, M.J., Zhou, Q., Sun, Q., Schaaf, C.B., Southworth, J., Mishra, N.B., Gibbes, C., Bunting, E., Christiansen, T.B., et al., 2016, Dynamics of the relationship between NDVI and SWIR32 vegetation indices in southern Africa—Implications for retrieval of fractional cover from MODIS

data: International Journal of Remote Sensing, v. 37, no. 6, p. 1476-1503, at http://dx.doi.org/10.1080/01431161.2016.1154225.

Hinkel, K.M., Lenters, J.D., Sheng, Y., Lyons, E.A., Beck, R.A., Eisner, W.R., Maurer, E.F., Wang, J., and Potter, B.L., 2012, Thermokarst lakes on the arctic coastal plain of Alaska—Spatial and temporal variability in summer water temperature: Permafrost and Periglacial Processes, v. 23, no. 3, p. 207-217, at http://dx.doi.org/10.1002/ppp.1743.

Hinkel, K.M., Lin, Z., Sheng, Y., and Lyons, E.A., 2012, Regional lake ice meltout patterns near Barrow, Alaska: Polar Geography, v. 35, no. 1, p. 1-18, at http://dx.doi.org/10.1080/1088937X.2011.654355.

Hinkel, K.M., Sheng, Y., Lenters, J.D., Lyons, E.A., Beck, R.A., Eisner, W.R., and Wang, J., 2012, Thermokarst lakes on the arctic coastal plain of Alaska—Geomorphic controls on bathymetry: Permafrost and Periglacial Processes, v. 23, no. 3, p. 218-230, at http://dx.doi.org/10.1002/ppp.1744.

Hipple, J.D., 2007, Assessment of risk in urban environments using geo-spatial analysis—policy, practice, and pixels, *in* Jensen, R.R., Gatrell, J.D., and McLean, D., Geo-spatial technologies in urban environments: Berlin, Germany, Springer, p. 33-46, at http://dx.doi.org/10.1007/978-3-540-69417-5_3.

Hipskind, S., Elvidge, C., Gurney, K., Imhoff, M., Bounoua, L., Sheffner, E., Nemani, R., Pettit, D., and Fischer, M., 2011, Global night-time lights for observing human activity, *in* Towards operational environmental monitoring, International Symposium on Remote Sensing of Environment—The GEOSS Era, 34th, Sydney, Australia, 10-15 April 2011, Proceedings: Tuscon, Ariz., International Center for Remote Sensing of Environment, p. 1-5, at http://www.isprs.org/proceedings/2011/ISRSE-34/.

Hobbins, M.T., Wood, A., McEvoy, D.J., Huntington, J.L., Morton, C., Anderson, M., and Hain, C., 2016, The evaporative demand drought index. Part I: Linking drought evolution to variations in evaporative demand: Journal of Hydrometeorology, v. 17, no. 6, p. 1745-1761, at http://dx.doi.org/10.1175/JHM-D-15-0121.1.

Hojas-Gascón, L., Belward, A., Eva, H., Ceccherini, G., Hagolle, O., Garcia, J., and Cerutti, P., 2015, Potential improvement for forest cover and forest degradation mapping with the forthcoming Sentinel-2 program, *in* International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences - ISPRS Archives, 40, p. 417-423, at http://dx.doi.org/10.5194/isprsarchives-XL-7-W3-417-2015.

Holmes, K.R., Coops, N.C., Nelson, T.A., Fontana, F.M.A., and Wulder, M.A., 2015, Indicators of vegetation productivity under a changing climate in British Columbia, Canada: Applied Geography, v. 56, p. 135-144, at http://dx.doi.org/10.1016/j.apgeog.2014.11.020.

Holmes, K.R., Nelson, T.A., Coops, N.C., and Wulder, M.A., 2013, Biodiversity indicators show climate change will alter vegetation in parks and protected areas: Diversity, v. 5, no. 2, p. 352-373, at http://dx.doi.org/10.3390/d5020352.

Holmes, T.R.H., Crow, W.T., Hain, C., Anderson, M.C., and Kustas, W.P., 2015, Diurnal temperature cycle as observed by thermal infrared and microwave radiometers: Remote Sensing of Environment, v. 158, p. 110-125, at http://dx.doi.org/10.1016/j.rse.2014.10.031.

Homer, C.G., Xian, G., Aldridge, C.L., Meyer, D.K., Loveland, T.R., and O'Donnell, M.S., 2015, Forecasting sagebrush ecosystem components and greater sage-grouse habitat for 2050—Learning from past climate patterns and Landsat imagery to predict the future: Ecological Indicators, v. 55, p. 131-145, at http://dx.doi.org/10.1016/j.ecolind.2015.03.002.

Hornbuckle, B.K., England, A.W., and Anderson, M.C., 2007, The effect of intercepted precipitation on the microwave emission of maize at 1.4 GHz: IEEE Transactions on Geoscience and Remote Sensing, v. 45, no. 7, p. 1988-1995, at http://dx.doi.org/10.1109/TGRS.2007.894057.

Hornbuckle, B.K., England, A.W., Anderson, M.C., and Viner, B.J., 2006, The effect of free water in a maize canopy on microwave emission at 1.4 GHz: Agricultural and Forest Meteorology, v. 138, no. 1-4, p. 180-191, at http://dx.doi.org/10.1016/j.agrformet.2006.05.003.

Hostert, P., 2007, Advances in urban remote sensing—examples from Berlin (Germany), *in* Netzband, M., Stefanov, W.L., and Redman, C., eds., Applied remote sensing for urban planning, governance and sustainability: Berlin, Germany, Springer, p. 37-51, at http://dx.doi.org/10.1007/978-3-540-68009-3_3.

Hostert, P., 2010, Processing techniques for hyperspectral data, chap. 9 *of* Rashed, R., and Jurgens, C., eds., Remote sensing of urban and suburban areas: Netherlands, Springer, p. 165-179, at http://dx.doi.org/10.1007/978-1-4020-4385-7_9.

Hostert, P., Kuemmerle, T., Prishchepov, A., Sieber, A., Lambin, E.F., and Radeloff, V.C., 2011, Rapid land use change after socio-economic disturbances—The collapse of the SovietUnion versus Chernobyl: Environmental Research Letters, v. 6, no. 4, article number 045201, at http://dx.doi.org/10.1088/1748-9326/6/4/045201.

Houborg, R., Anderson, M., and Daughtry, C., 2009, Utility of an image-based canopy reflectance modeling tool for remote estimation of LAI and leaf chlorophyll content at the field scale: Remote Sensing of Environment, v. 113, no. 1, p. 259-274, at http://dx.doi.org/10.1016/j.rse.2008.09.014.

Houborg, R., and Anderson, M.C., 2009, Utility of an image-based canopy reflectance modeling tool for remote estimation of LAI and leaf chlorophyll content at regional scales: Journal of Applied Remote Sensing, v. 3, no. 1, citation identifier 033529, at http://dx.doi.org/10.1117/1.3141522.

Houborg, R., and Anderson, M.C., 2008, Utility of an image-based canopy reflectance modeling tool for remote estimation of LAI and leaf chlorophyll content in crop systems, *in* International Geoscience and Remote Sensing Symposium, Bostom, Mass., 7-11 July 2008, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. II141-II144, at http://dx.doi.org/10.1109/IGARSS.2008.4778947.

Houborg, R., Anderson, M.C., Daughtry, C.S.T., Kustas, W.P., and Rodell, M., 2011, Using leaf chlorophyll to parameterize light-use-efficiency within a thermal-based carbon, water and energy exchange model: Remote Sensing of Environment, v. 115, no. 7, p. 1694-1705, at http://dx.doi.org/10.1016/j.rse.2011.02.027.

Houborg, R., Anderson, M.C., Norman, J.M., Wilson, T., and Meyers, T., 2009, Intercomparison of a 'bottom-up' and 'top-down' modeling paradigm for estimating carbon and energy fluxes over a variety of vegetative regimes across the U.S: Agricultural and Forest Meteorology, v. 149, no. 12, p. 2162-2182, at http://dx.doi.org/10.1016/j.agrformet.2009.10.002.

Houborg, R., McCabe, M.F., and Gao, F., 2015, Downscaling of coarse resolution LAI products to achieve both high spatial and temporal resolution for regions of interest, *in* International Geoscience and Remote Sensing Symposium, Milan, Italy, 26-31 July 2015, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 3317-3320, article number 7326528, at http://dx.doi.org/10.1109/IGARSS.2015.7326528.

Houet, T., Loveland, T.R., Hubert-Moy, L., Gaucherel, C., Napton, D., Barnes, C.A., and Sayler, K., 2010, Exploring subtle land use and land cover changes—A framework for future landscape studies: Landscape Ecology, v. 25, no. 2, p. 249-266, at http://dx.doi.org/10.1007/s10980-009-9362-8.

Houet, T., Verburg, P.H., and Loveland, T.R., 2010, Monitoring and modelling landscape dynamics: Landscape Ecology, v. 25, no. 2, p. 163-167, at http://dx.doi.org/10.1007/s10980-009-9417-x.

Howat, I.M., Joughin, I., Fahnestock, M., Smith, B.E., and Scambos, T.A., 2008, Synchronous retreat and acceleration of southeast Greenland outlet glaciers 2000-06—Ice dynamics and coupling to climate: Journal of Glaciology, v. 54, no. 187, p. 646-660, at http://dx.doi.org/10.3189/002214308786570908.

Howat, I.M., Joughin, I., and Scambos, T.A., 2007, Rapid changes in ice discharge from Greenland outlet glaciers: Science, v. 315, no. 5818, p. 1559-1561, at http://dx.doi.org/10.1126/science.1138478.

Howat, I.M., Smith, B.E., Joughin, I., and Scambos, T.A., 2008, Rates of southeast Greenland ice volume loss from combined ICESat and ASTER observations: Geophysical Research Letters, v. 35, no. 17, citation number L17505, at http://dx.doi.org/10.1029/2008GL034496.

Howe, G.A., Hewawasam, K., Douglas, E.S., Martel, J., Li, Z., Strahler, A., Schaaf, C., Cook, T.A., and Chakrabarti, S., 2015, Capabilities and performance of dual-wavelength Echidna® lidar: Journal of Applied Remote Sensing, v. 9, no. 1, at http://dx.doi.org/10.1117/1.JRS.9.095979.

Huang, C., Goward, S.N., Masek, J.G., Thomas, N., Zhu, Z., and Vogelmann, J.E., 2010, An automated approach for reconstructing recent forest disturbance history using dense Landsat time series stacks: Remote Sensing of Environment, v. 114, no. 1, p. 183-198, at http://dx.doi.org/10.1016/j.rse.2009.08.017.

Huang, C., Goward, S.N., Schleeweis, K., Thomas, N., Masek, J.G., and Zhu, Z., 2009, Dynamics of national forests assessed using the Landsat record—Case studies in eastern United States: Remote Sensing of Environment, v. 113, no. 7, p. 1430-1442, at http://dx.doi.org/10.1016/j.rse.2008.06.016.

Huang, C., Song, K., Kim, S., Townshend, J.R.G., Davis, P., Masek, J.G., and Goward, S.N., 2008, Use of a dark object concept and support vector machines to automate forest cover change analysis: Remote Sensing of Environment, v. 112, no. 3, p. 970-985, at http://dx.doi.org/10.1016/j.rse.2007.07.023.

Huang, C., Thomas, N., Goward, S.N., Masek, J.G., Zhu, Z., Townshend, J.R.G., and Vogelmann, J.E., 2010, Automated masking of cloud and cloud shadow for forest change analysis using Landsat images: International Journal of Remote Sensing, v. 31, no. 20, p. 5449-5464, at http://dx.doi.org/10.1080/01431160903369642.

Huang, H., and Wynne, R.H., 2013, Simulation of lidar waveforms with a time-dependent radiosity algorithm: Canadian Journal of Remote Sensing, v. 39, no. Suppl. 1, p. S126-S138, at http://dx.doi.org/10.5589/m13-035.

Huang, X., Cole, J.N.S., He, F., Potter, G.L., Oreopoulos, L., Lee, D., Suarez, M., and Loeb, N.G., 2013, Longwave band-by-band cloud radiative effect and its application in GCM evaluation: Journal of Climate, v. 26, no. 2, p. 450-467, at http://dx.doi.org/10.1175/JCLI-D-12-00112.1.

Hudak, A.T., Bright, B.C., and Kennedy, R.E., 2013, Predicting live and dead basal area from LandTrendr variables in beetle-affected forests, *in* Our dynamic environment, International Conference and Workshop on the Analysis of Multi-Temporal Remote Sensing Images, 7th, Alberta, Canada, 25-

27 June 2013, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 1-4, at http://dx.doi.org/10.1109/Multi-Temp.2013.6866024.

Huete, A.R., Didan, K., Shimabukuro, Y.E., Ratana, P., Saleska, S.R., Hutyra, L.R., Yang, W., Nemani, R.R., and Myneni, R., 2006, Amazon rainforests green-up with sunlight in dry season: Geophysical Research Letters, v. 33, no. 6, citation number L06405, at http://dx.doi.org/10.1029/2005GL025583.

Hui, F., Ci, T., Cheng, X., Scambos, T.A., Liu, Y., Zhang, Y., Chi, Z., Huang, H., Wang, X., et al., 2014, Mapping blue-ice areas in Antarctica using ETM+ and MODIS data: Annals of Glaciology, v. 55, no. 66, p. 129-137, at http://dx.doi.org/10.3189/2014AoG66A069.

Hulbe, C.L., Scambos, T.A., Klinger, M., and Fahnestock, M.A., 2016, Flow variability and ongoing margin shifts on Bindschadler and MacAyeal Ice Streams, West Antarctica: Journal of Geophysical Research F: Earth Surface, at http://dx.doi.org/10.1002/2015JF003670.

Hulbe, C.L., Scambos, T.A., Lee, C.K., Bohlander, J., and Haran, T., 2013, Recent changes in the flow of the Ross Ice Shelf, West Antarctica: Earth and Planetary Science Letters, v. 376, p. 54-62, at http://dx.doi.org/10.1016/j.epsl.2013.06.013.

Hulbe, C.L., Scambos, T.A., Youngberg, T., and Lamb, A.K., 2008, Patterns of glacier response to disintegration of the Larsen B ice shelf, Antarctic Peninsula: Global and Planetary Change, v. 63, no. 1, p. 1-8, at http://dx.doi.org/10.1016/j.gloplacha.2008.04.001.

Huntington, J., McGwire, K., Morton, C., Snyder, K., Peterson, S., Erickson, T., Niswonger, R., Carroll, R., Smith, G., et al., 2016, Assessing the role of climate and resource management on groundwater dependent ecosystem changes in arid environments with the Landsat archive: Remote Sensing of Environment, at http://dx.doi.org/10.1016/j.rse.2016.07.004.

Huntington, J.L., and Allen, R.G., 2009, Evapotranspiration and net irrigation water requirements for Nevada, *in* Starrett, S., ed., Great rivers, World Environmental and Water Resources Congress, Kansas City, Mo., 17-21 May 2009, Proceedings: Reston, Va., American Society of Civil Engineers, p. 4172-4186, at http://dx.doi.org/10.1061/41036(342)420.

Huntington, J.L., and Niswonger, R.G., 2012, Role of surface-water and groundwater interactions on projected summertime streamflow in snow dominated regions—An integrated modeling approach: Water Resources Research, v. 48, no. 11, citation number W11524, at http://dx.doi.org/10.1029/2012WR012319.

Huntington, J.L., Szilagyi, J., Tyler, S.W., and Pohll, G.M., 2011, Evaluating the complementary relationship for estimating evapotranspiration from arid shrublands: Water Resources Research, v. 47, no. 5, citation number W05533, at http://dx.doi.org/10.1029/2010WR009874.

Hutchison, K.D., Mahoney, R.L., Vermote, E.F., Kopp, T.J., Jackson, J.M., Sei, A., and Iisager, B.D., 2009, A geometry-based approach to identifying cloud shadows in the VIIRS cloud mask algorithm for NPOESS: Journal of Atmospheric and Oceanic Technology, v. 26, no. 7, p. 1388-1397, at http://dx.doi.org/10.1175/2009JTECHA1198.1.

Ichii, K., Hashimoto, H., White, M.A., Potter, C., Hutyra, L.R., Huete, A.R., Myneni, R.B., and Nemani, R.R., 2007, Constraining rooting depths in tropical rainforests using satellite data and ecosystem modeling for accurate simulation of gross primary production seasonality: Global Change Biology, v. 13, no. 1, p. 67-77, at http://dx.doi.org/10.1111/j.1365-2486.2006.01277.x.

Ichii, K., Wang, W., Hashimoto, H., Yang, F., Votava, P., Michaelis, A.R., and Nemani, R.R., 2009, Refinement of rooting depths using satellite-based evapotranspiration seasonality for ecosystem

modeling in California: Agricultural and Forest Meteorology, v. 149, no. 11, p. 1907-1918, at http://dx.doi.org/10.1016/j.agrformet.2009.06.019.

Ichii, K., White, M.A., Votava, P., Michaelis, A., and Nemani, R.R., 2008, Evaluation of snow models in terrestrial biosphere models using ground observation and satellite data—Impact on terrestrial ecosystem processes: Hydrological Processes, v. 22, no. 3, p. 347-355, at http://dx.doi.org/10.1002/hyp.6616.

Ientilucci, E.J., and Schott, J.R., 2006, Physics based target detection using a hybrid algorithm with an infeasibility metric, *in* Acoustics, Speech and Signal Processing, Toulouse, France, 14-19 May 2006, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. V1193-V1196, at http://dx.doi.org/10.1109/ICASSP.2006.1661495.

Imoto, H.H.H., Melton, F., Ichii, K., Milesi, C., Wang, W., and Nemani, R.R., 2010, Evaluating the impacts of climate and elevated carbon dioxide on tropical rainforests of the western Amazon basin using ecosystem models and satellite data: Global Change Biology, v. 16, no. 1, p. 255-271, at http://dx.doi.org/10.1111/j.1365-2486.2009.01921.x.

Irish, R.R., Barker, J.L., Goward, S.N., and Arvidson, T., 2006, Characterization of the Landsat-7 ETM+ automated cloud-cover assessment (ACCA) algorithm: Photogrammetric Engineering and Remote Sensing, v. 72, no. 10, p. 1179-1188, at http://dx.doi.org/10.14358/PERS.72.10.1179.

Irmak, S., Payero, J.O., Kilic, A., Odhiambo, L.O., Rudnick, D., Sharma, V., and Billesbach, D., 2014, On the magnitude and dynamics of eddy covariance system residual energy (energy balance closure error) in subsurface drip-irrigated maize field during growing and non-growing (dormant) seasons: Irrigation Science, v. 32, no. 6, p. 471-483, at http://dx.doi.org/10.1007/s00271-014-0443-3.

Irons, J.R., and Dwyer, J.L., 2010, An overview of the Landsat Data Continuity Mission, *in* Shen, S.S., and Lewis, P.E., eds., Algorithms and Technologies for Multispectral, Hyperspectral, and Ultraspectral Imagery XVI, Orlando, Fla., 5-8 April 2010, Proceedings of SPIE Vol. 7695: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 769508, at http://dx.doi/org/10.1117/12.850416.

Irons, J.R., Dwyer, J.L., and Barsi, J.A., 2012, The next Landsat satellite—The Landsat Data Continuity Mission: Remote Sensing of Environment, v. 122, p. 11-21, at http://dx.doi.org/10.1016/j.rse.2011.08.026.

Irons, J.R., and Loveland, T.R., 2013, Eighth Landsat satellite becomes operational: Photogrammetric Engineering and Remote Sensing, v. 79, no. 5, p. 399-401, at http://digital.ipcprintservices.com/publication/?i=156782&p=&l=&m=&ver=&pp=.

Irons, J.R., and Masek, J.G., 2006, Requirements for a Landsat data continuity mission: Photogrammetric Engineering and Remote Sensing, v. 72, no. 10, p. 1102-1108, at http://www.asprs.org/Photogrammetric-Engineering-and-Remote-Sensing/PE-RS-Journals.html.

Irons, J.R., and Murphy-Morris, J., 2007, An operational land imager for the Landsat data continuity mission, *in* International Geoscience and Remote Sensing Symposium, Barcelona, Spain, 23-28 July 2007, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 2808-2810, at http://dx.doi.org/10.1109/IGARSS.2007.4423426.

Islam, M.A., Thenkabail, P.S., Kulawardhana, R.W., Alankara, R., Gunasinghe, S., Edussriya, C., and Gunawardana, A., 2008, Semi-automated methods for mapping wetlands using Landsat ETM+ and SRTM data: International Journal of Remote Sensing, v. 29, no. 24, p. 7077-7106, at http://dx.doi.org/10.1080/01431160802235878.

Jägermeyr, J., Gerten, D., Lucht, W., Hostert, P., Migliavacca, M., and Nemani, R., 2013, A high-resolution approach to estimating ecosystem respiration at continental scales using operational satellite data: Global Change Biology, v. 20, no. 4, p. 1191-1210, at http://dx.doi.org/10.1111/gcb.12443.

Jaksa, W.T., Sridhar, V., Huntington, J.L., and Khanal, M., 2013, Evaluation of the complementary relationship using noah land surface model and North American regional reanalysis (NARR) data to estimate evapotranspiration in semiarid ecosystems: Journal of Hydrometeorology, v. 14, no. 1, p. 345-359, at http://dx.doi.org/10.1175/JHM-D-11-067.1.

Jakubowski, M.K., Pogorzala, D., Hattenberger, T.J., Brown, S.D., and Schott, J.R., 2007, Synthetic data generation of high resolution, hyperspectral data using DIRSIG, *in* Shen, S.S., and Lewis, P.E., eds., Imaging Spectrometry XII, San Diego, Calif., 28–29 August 2007, Proceedings of SPIE Vol. 6661: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 66610G, at http://dx.doi.org/10.1117/12.735264.

Jeon, S.B., Olofsson, P., and Woodcock, C.E., 2014, Land use change in New England—A reversal of the forest transition: Journal of Land Use Science, v. 9, no. 1, p. 105-130, at http://dx.doi.org/10.1080/1747423X.2012.754962.

Jeon, S.B., Woodcock, C.E., Zhao, F., Yang, X., Houghton, R.A., and Hackler, J.L., 2008, The effects of land use change on the terrestrial carbon budgets of new england, *in* International Geoscience and Remote Sensing Symposium, Boston, Mass., 7-11 July 2008, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. V204-V207, at http://dx.doi.org/10.1109/IGARSS.2008.4780063.

Ji, L., Gallo, K., Eidenshink, J.C., and Dwyer, J., 2008, Agreement evaluation of AVHRR and MODIS 16-day composite NDVI data sets: International Journal of Remote Sensing, v. 29, no. 16, p. 4839-4861, at http://dx.doi.org/10.1080/01431160801927194.

Jiao, Z., Hill, M.J., Schaaf, C.B., Zhang, H., Wang, Z., and Li, X., 2014, An anisotropic flat index (AFX) to derive BRDF archetypes from MODIS: Remote Sensing of Environment, v. 141, p. 168-187, at http://dx.doi.org/10.1016/j.rse.2013.10.017.

Jiao, Z., Schaaf, C.B., Gao, F., Strahler, A.H., Li, X., Wang, J., and Liu, J., 2008, An angular index to indicate surface heterogeneous behaviors from MODIS, *in* International Geoscience and Remote Sensing Symposium, Boston, Mass., 7-11 July 2008, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. III770-III773, at http://dx.doi.org/10.1109/IGARSS.2008.4779462.

Jiao, Z., Woodcock, C., Schaaf, C.B., Tan, B., Liu, J., Gao, F., Strahler, A., Li, X., and Wang, J., 2011, Improving MODIS land cover classification by combining MODIS spectral and angular signatures in a Canadian boreal forest: Canadian Journal of Remote Sensing, v. 37, no. 2, p. 184-203, at http://dx.doi.org/10.5589/m11-030.

Johnson, D., Cherkaev, E., Furse, C., and Tripp, A.C., 2013, Cross-borehole delineation of a conductive ore deposit in a resistive host-experimental design: Geophysics, v. 78, no. 3, p. 824-835, at http://dx.doi.org/10.1190/1.1444972.

Johnson, D., and Thiebaut, S., 2013, Ensemble forecasting of wave conditions for ports and coastal regions, *in* Coasts and Ports 2013—Australasian Coastal and Ocean Engineering Conference, 21st, and Australasian Port and Harbour Conference, 14th, Sydney, Australia, 11-13 September 2013, Proceedings: Sydney, Australia, Barton, A.C.T., Engineers Australia, p. 436-440, at http://search.informit.com.au/browsePublication;isbn=9781922107053;res=IELENG.

Johnson, D.M., 2013, A 2010 map estimate of annually tilled cropland within the conterminous United States: Agricultural Systems, v. 114, p. 95-105, at http://dx.doi.org/10.1016/j.agsy.2012.08.004.

Johnson, D.M., 2014, An assessment of pre- and within-season remotely sensed variables for forecasting corn and soybean yields in the United States: Remote Sensing of Environment, v. 141, p. 116-128, at http://dx.doi.org/10.1016/j.rse.2013.10.027.

Johnson, D.M., 2008, A comparison of coincident Landsat-5 TM and Resourcesat-1 AWiFS imagery for classifying croplands: Photogrammetric Engineering and Remote Sensing, v. 74, no. 11, p. 1413-1423, at http://dx.doi.org/10.14358/PERS.74.11.1413.

Johnson, D.M., 2008, An evaluation of Resourcesat-1 LISS-III versus AWIFS imagery for identifying croplands, *in* Bridging the horizons—New frontiers in geospatial collaboration, Annual Conference, Portland, Oreg., 28 April-2 May 2008, Proceedings: Bethesda, Md., American Society for Photogrammetry and Remote Sensing p. 309-316, at http://www.asprs.org/a/publications/proceedings/portland08/.

Johnson, D.M., Porter, A.L., Roessner, D., Newman, N.C., and Jin, X.Y., 2010, High-tech indicators—Assessing the competitiveness of selected European countries: Technology Analysis and Strategic Management, v. 22, no. 3, p. 277-296, at http://dx.doi.org/10.1080/09537321003647313.

Johnson, L., Nemani, R., Melton, F., Michaelis, A., Votava, P., Wang, D., and Trout, T., 2010, Information technology supports integration of satellite imagery with irrigation management in California's Central Valley, *in* Dukes, M.D., ed., National Decennial Irrigation Conference, 5th, Phoenix, Ariz., 5-8 December 2010, Proceedings: St. Joseph, Mich., American Society of Agricultural and Biological Engineers, p. 790-797, at http://dx.doi.org/10.13031/2013.35877.

Johnson, L., Pierce, L., Michaelis, A., Scholasch, T., and Nemani, R., 2007, Remote sensing and water balance modeling in California drip-irrigated vineyards, *in* Graham, R., ed., Examining the confluence of environmental and water concerns, World Environmental and Water Resources Congress, Omaha, Nebr., 21-25 May 2006, Proceedings: Reston, Va., American Society of Civil Engineers, p. 1-9, at http://dx.doi/org/10.1061/40856(200)293.

Joiner, J., Schoeberl, M.R., Vasilkov, A.P., Oreopoulos, L., Platnick, S., Livesey, N.J., and Levelt, P.F., 2009, Accurate satellite-derived estimates of the tropospheric ozone impact on the global radiation budget: Atmospheric Chemistry and Physics, v. 9, no. 13, p. 4447-4465, at http://dx.doi.org/10.5194/acp-9-4447-2009.

Joshi, N., Baumann, M., Ehammer, A., Fensholt, R., Grogan, K., Hostert, P., Jepsen, M.R., Kuemmerle, T., Meyfroidt, P., et al., 2016, A review of the application of optical and radar remote sensing data fusion to land use mapping and monitoring: Remote Sensing, v. 8, no. 1, at http://dx.doi.org/10.3390/rs8010070.

Joughin, I., Bamber, J.L., Scambos, T., Tulaczyk, S., Fahnestock, M., and MacAyeal, D.R., 2006, Integrating satellite observations with modelling—Basal shear stress of the Filcher-Ronne ice streams, Antarctica: Philosophical Transactions of the Royal Society A—Mathematical, Physical and Engineering Sciences, v. 364, no. 1844, p. 1795-1814, at http://dx.doi.org/10.1098/rsta.2006.1799.

Joughin, I., Smith, B.E., Howat, I.M., Moon, T., and Scambos, T.A., 2016, A SAR record of early 21st century change in Greenland: Journal of Glaciology, v. 62, no. 231, p. 62-71, at http://dx.doi.org/10.1017/jog.2016.10.

Joughin, I., Smith, B.E., Howat, I.M., Scambos, T., and Moon, T., 2010, Greenland flow variability from ice-sheet-wide velocity mapping: Journal of Glaciology, v. 56, no. 197, p. 415-430, at http://dx.doi.org/10.3189/002214310792447734.

Joughin, I., Tulaczyk, S., Bamber, J.L., Blankenship, D., Holt, J.W., Scambos, T., and Vaughan, D.G., 2009, Basal conditions for Pine Island and Thwaites Glaciers, West Antarctica, determined using satellite and airborne data: Journal of Glaciology, v. 55, no. 190, p. 245-257, at http://dx.doi.org/10.3189/002214309788608705.

Ju, J., and Roy, D.P., 2008, The availability of cloud-free Landsat ETM+ data over the conterminous United States and globally: Remote Sensing of Environment, v. 112, no. 3, p. 1196-1211, at http://dx.doi.org/10.1016/j.rse.2007.08.011.

Ju, J., Roy, D.P., Shuai, Y., and Schaaf, C., 2010, Development of an approach for generation of temporally complete daily nadir MODIS reflectance time series: Remote Sensing of Environment, v. 114, no. 1, p. 1-20, at http://dx.doi.org/10.1016/j.rse.2009.05.022.

Ju, J., Roy, D.P., Vermote, E., Masek, J., and Kovalskyy, V., 2012, Continental-scale validation of MODIS-based and LEDAPS Landsat ETM+ atmospheric correction methods: Remote Sensing of Environment, v. 122, p. 175-184, at http://dx.doi.org/10.1016/j.rse.2011.12.025.

Ju, J., Vermote, E., Roy, D.P., and Masek, J., 2011, Continental scale validation of MODIS-based and LEDAPS Landsat ETM+ atmospheric correction methods, *in* Towards operational environmental monitoring, International Symposium on Remote Sensing of Environment—The GEOSS Era, 34th, Sydney, Australia, 10-15 April 2011, Proceedings: Tuscon, Ariz., International Center for Remote Sensing of Environment, p. 1-3, at http://www.isprs.org/proceedings/2011/ISRSE-34/.

Jupp, D.L.B., Culvenor, D.S., Lovell, J.L., Newnham, G.J., Strahler, A.H., and Woodcock, C.E., 2009, Estimating forest LAI profiles and structural parameters using a ground-based laser called 'Echidna®: Tree Physiology, v. 29, no. 2, p. 171-181, at http://dx.doi.org/10.1093/treephys/tpn022.

Justice, C., Becker-Reshef, I., Parihar, J.S., DeLince, J., Leo, O., Binfang, W., Defourny, P., Townshend, J., and Fan, J., 2009, The GEO global agricultural monitoring system of systems task—An overview, *in* Sustaining the millennium development goals, International Symposium on Remote Sensing of Environment, 33rd, Stresa, Italy, 4-8 May 2009, Proceedings: Tuscon, Ariz., International Center for Remote Sensing of Environment, p. 95-98.

Justice, C., Brix, A., Freimark, D., Kraume, M., Pfromm, P., Eichenmueller, B., and Czermak, P., 2011, Process control in cell culture technology using dielectric spectroscopy: Biotechnology Advances, v. 29, no. 4, p. 391-401, at http://dx.doi.org/10.1016/j.biotechadv.2011.03.002.

Justice, C., Leber, J., Freimark, D., Pino Grace, P., Kraume, M., and Czermak, P., 2011, Online- and offline-monitoring of stem cell expansion on microcarrier: Cytotechnology, v. 63, no. 4, p. 325-335, at http://dx.doi.org/10.1007/s10616-011-9359-4.

Justice, C.O., Giglio, L., Roy, D., Boschetti, L., Csiszar, I., Davies, D., Korontzi, S., Schroeder, W., O'Neal, K., et al., 2011, MODIS-derived global fire products, Remote Sensing and Digital Image Processing, v. 11, p. 661-679, at http://dx.doi.org/10.1007/978-1-4419-6749-7_29.

Justice, C.O., Román, M.O., Csiszar, I., Vermote, E.F., Wolfe, R.E., Hook, S.J., Friedl, M., Wang, Z., Schaaf, C.B., et al., 2013, Land and cryosphere products from Suomi NPP VIIRS—Overview and status: Journal of Geophysical Research D—Atmospheres, v. 118, no. 17, p. 9753-9765, at http://dx.doi.org/10.1002/jgrd.50771.

Justice, C.O., Vermote, E., Privette, J., and Sei, A., 2011, The evolution of U.S. moderate resolution optical land remote sensing from AVHRR to VIIRS, Remote Sensing and Digital Image Processing, v. 11, p. 781-806, at http://dx.doi.org/10.1007/978-1-4419-6749-7_34.

Kabela, E.D., Hornbuckle, B.K., Cosh, M.H., Anderson, M.C., and Gleason, M.L., 2009, Dew frequency, duration, amount, and distribution in corn and soybean during SMEX05: Agricultural and Forest Meteorology, v. 149, no. 1, p. 11-24, at http://dx.doi.org/10.1016/j.agrformet.2008.07.002.

Kala, J., Evans, J.P., Pitman, A.J., Schaaf, C.B., Decker, M., Carouge, C., Mocko, D., and Sun, Q., 2014, Erratum—"Implementation of a soil albedo scheme in the CABLEv1.4b land surface model and evaluation against MODIS estimates over Australia" (Geosci. Model Dev. (2014) 7 (2121-2140)): Geoscientific Model Development, v. 7, no. 5, p. 2501, at http://dx.doi.org/10.5194/gmd-7-2501-2014.

Kala, J., Evans, J.P., Pitman, A.J., Schaaf, C.B., Decker, M., Carouge, C., Mocko, D., and Sun, Q., 2014, Implementation of a soil albedo scheme in the CABLEv1.4b land surface model and evaluation against MODIS estimates over Australia: Geoscientific Model Development, v. 7, no. 5, p. 2121-2140, at http://dx.doi.org/10.5194/gmd-7-2121-2014.

Kamble, B., Kilic, A., and Hubbard, K., 2013, Estimating crop coefficients using remote sensing-based vegetation index: Remote Sensing, v. 5, no. 4, p. 1588-1602, at http://dx.doi.org/10.3390/rs5041588.

Kargel, J.S., Ahlstrøm, A.P., Alley, R.B., Bamber, J.L., Benham, T.J., Box, J.E., Chen, C., Christoffersen, P., Citterio, M., et al., 2012, Brief communication—Greenland's shrinking ice cover—"Fast times" but not that fast: Cryosphere, v. 6, no. 3, p. 533-537, at http://dx.doi.org/10.5194/tc-6-533-2012.

Karnieli, A., Agam, N., Pinker, R.T., Anderson, M., Imhoff, M.L., Gutman, G.G., Panov, N., and Goldberg, A., 2010, Use of NDVI and land surface temperature for drought assessment—Merits and limitations: Journal of Climate, v. 23, no. 3, p. 618-633, at http://dx.doi.org/10.1175/2009JCLI2900.1.

Karstensen, K.A., and Loveland, T.R., 2009, Monitoring land use on military installations: Military Engineer, v. 101, no. 657, p. 47-48, at http://themilitaryengineer.com/TME/TMEpastissuespage.htm.

Kasischke, E.S., Amiro, B.D., Barger, N.N., French, N.H.F., Goetz, S.J., Grosse, G., Harmon, M.E., Hicke, J.A., Liu, S., et al., 2013, Impacts of disturbance on the terrestrial carbon budget of North America: Journal of Geophysical Research G—Biogeosciences, v. 118, no. 1, p. 303-316, at http://dx.doi.org/10.1002/jgrg.20027.

Kathuroju, N., White, M.A., Symanzik, J., Schwartz, M.D., Powell, J.A., and Nemani, R.R., 2007, On the use of the advanced very high resolution radiometer for development of prognostic land surface phenology models: Ecological Modelling, v. 201, no. 2, p. 144-156, at http://dx.doi.org/10.1016/j.ecolmodel.2006.09.011.

Kaufmann, H., Segl, K., Guanter, L., Hofer, S., Foerster, K.P., Stuffler, T., Mueller, A., Richter, R., Bach, H., et al., 2008, Environmental mapping and analysis program (ENMAP)—recent advances and status, *in* International Geoscience and Remote Sensing Symposium, Boston, Mass., 7-11 July 2008, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. IV109-IV112, at http://dx.doi.org/10.1109/IGARSS.2008.4779668.

Kawamura, K., Severinghaus, J.P., Albert, M.R., Courville, Z.R., Fahnestock, M.A., Scambos, T., Shields, E., and Shuman, C.A., 2013, Kinetic fractionation of gases by deep air convection in polar firn: Atmospheric Chemistry and Physics, v. 13, no. 21, p. 11141-11155, at http://dx.doi.org/10.5194/acp-13-11141-2013.

Kennaway, T., and Helmer, E.H., 2007, The forest types and ages cleared for land development in Puerto Rico: GIScience and Remote Sensing, v. 44, no. 4, p. 356-382, at http://dx.doi.org/10.2747/1548-1603.44.4.356.

Kennaway, T.A., Helmer, E.H., Lefsky, M.A., Brandeis, T.A., and Sherrill, K.R., 2008, Mapping land cover and estimating forest structure using satellite imagery and coarse resolution lidar in the Virgin Islands: Journal of Applied Remote Sensing, v. 2, no. 1, citation identifier 023551, at http://dx.doi.org/10.1117/1.3063939.

Kennedy, R.E., 2012, New views on changing Arctic vegetation: Environmental Research Letters, v. 7, no. 1, article number 011001, at http://dx.doi.org/10.1088/1748-9326/7/1/011001.

Kennedy, R.E., Andréfouët, S., Cohen, W.B., Gómez, C., Griffiths, P., Hais, M., Healey, S.P., Helmer, E.H., Hostert, P., et al., 2014, Bringing an ecological view of change to Landsat-based remote sensing: Frontiers in Ecology and the Environment, v. 12, no. 6, p. 339-346, at http://dx.doi.org/10.1890/130066.

Kennedy, R.E., Cohen, W.B., and Schroeder, T.A., 2007, Trajectory-based change detection for automated characterization of forest disturbance dynamics: Remote Sensing of Environment, v. 110, no. 3, p. 370-386, at http://dx.doi.org/10.1016/j.rse.2007.03.010.

Kennedy, R.E., Townsend, P.A., Gross, J.E., Cohen, W.B., Bolstad, P., Wang, Y.Q., and Adams, P., 2009, Remote sensing change detection tools for natural resource managers—Understanding concepts and tradeoffs in the design of landscape monitoring projects: Remote Sensing of Environment, v. 113, no. 7, p. 1382-1396, at http://dx.doi.org/10.1016/j.rse.2008.07.018.

Kennedy, R.E., Turner, D.P., Cohen, W.B., and Guzy, M., 2006, A method to efficiently apply a biogeochemical model to a landscape: Landscape Ecology, v. 21, no. 2, p. 213-224, at http://dx.doi.org/10.1007/s10980-005-0827-0.

Kennedy, R.E., Yang, Z., Braaten, J., Cohen, W.B., Nelson, P., and Pfaff, E., 2013, A satellite's view of recent trends in forest harvest intensity in the Pacific Northwest, *in* Anderson, P.D., and Ronnenberg, K.L., eds., Density management in the 21st century—west side story: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station General Technical Report PNW-GTR 880, p. 38-40, at http://www.fs.fed.us/pnw/publications/gtrs.shtml.

Kennedy, R.E., Yang, Z., Braaten, J., Copass, C., Antonova, N., Jordan, C., and Nelson, P., 2015, Attribution of disturbance change agent from Landsat time-series in support of habitat monitoring in the Puget Sound region, USA: Remote Sensing of Environment, v. 166, p. 271-285, at http://dx.doi.org/10.1016/j.rse.2015.05.005.

Kennedy, R.E., Yang, Z., and Cohen, W.B., 2010, Detecting trends in forest disturbance and recovery using yearly Landsat time series—1. LandTrendr - Temporal segmentation algorithms: Remote Sensing of Environment, v. 114, no. 12, p. 2897-2910, at http://dx.doi.org/10.1016/j.rse.2010.07.008.

Kennedy, R.E., Yang, Z., Cohen, W.B., Pfaff, E., Braaten, J., and Nelson, P., 2012, Spatial and temporal patterns of forest disturbance and regrowth within the area of the Northwest Forest Plan: Remote Sensing of Environment, v. 122, p. 117-133, at http://dx.doi.org/10.1016/j.rse.2011.09.024.

Kennicutt, M.C., Chown, S.L., Cassano, J.J., Liggett, D., Peck, L.S., Massom, R., Rintoul, S.R., Storey, J., Vaughan, D.G., et al., 2014, A roadmap for Antarctic and Southern Ocean science for the next two decades and beyond: Antarctic Science, v. 27, no. 1, p. 3-18, at http://dx.doi.org/10.1017/S0954102014000674.

Kerekes, J.P., and Schott, J.R., 2006, Hyperspectral imaging systems, *in* Chang, C.I., ed., Hyperspectral data exploitation—theory and applications: Hoboken, N.J., John Wiley & Sons, Inc., p. 17-45, at http://dx.doi.org/10.1002/9780470124628.ch2.

Kim, Y., Yang, Z., Cohen, W.B., Pflugmacher, D., Lauver, C.L., and Vankat, J.L., 2009, Distinguishing between live and dead standing tree biomass on the North Rim of Grand Canyon National Park, USA using small-footprint lidar data: Remote Sensing of Environment, v. 113, no. 11, p. 2499-2510, at http://dx.doi.org/10.1016/j.rse.2009.07.010.

Kjaersgaard, J., Allen, R., and Irmak, A., 2011, Improved methods for estimating monthly and growing season ET using METRIC applied to moderate resolution satellite imagery: Hydrological Processes, v. 25, no. 26, p. 4028-4036, at http://dx.doi.org/10.1002/hyp.8394.

Kjaersgaard, J.H., Allen, R.G., Aggett, G.R., Schneider, C.A., Hattendorf, M.J., Irmak, A., Hergert, G.W., and Robison, C., 2008, Computation of Landsat based evapotranspiration maps along the South Platte and North Platte Rivers, *in* Babcock Jr., R.W., and Walton, R., eds., World Environmental and Water Resources Congress, Honolulu, Hawaii, 12-16 May 2008, Proceedings: Reston, Va., American Society of Civil Engineers, p. 1-10, at http://dx.doi.org/10.1061/40976(316)97.

Kjaersgaard, J.H., Allen, R.G., Garcia, M., Kramber, W., and Trezza, R., 2009, Automated selection of anchor pixels for Landsat based evapotranspiration estimation, *in* Starrett, S., ed., Great rivers, World Environmental and Water Resources Congress, Kansas City, Mo., 17-21 May 2009, Proceedings: Reston, Va., American Society of Civil Engineers, p. 4400-4410, at http://dx.doi.org/10.1061/41036(342)442.

Kjaersgaard, J.H., Gowda, P.H., Allen, R.G., and Howell, T.A., 2009, Independent comparisons among calibration and output of energy balance components estimated by the METRIC procedure, *in* Starrett, S., ed., Great rivers, World Environmental and Water Resources Congress, Kansas City, Mo., 17-21 May 2009, Proceedings: Reston, Va., American Society of Civil Engineers, p. 4362-4371, at http://dx.doi.org/10.1061/41036(342)438.

Klaus, M., Holsten, A., Hostert, P., and Kropp, J.P., 2011, Integrated methodology to assess windthrow impacts on forest stands under climate change: Forest Ecology and Management, v. 261, no. 11, p. 1799-1810, at http://dx.doi.org/10.1016/j.foreco.2011.02.002.

Klempner, S.L., Bartlett, B., and Schott, J.R., 2006, Ground truth-based variability analysis of atmospheric inversion in the presence of clouds, *in* Huang, A.H.L., and Bloom, H.J., eds., Perspective on calibration/validation initiatives and strategies, Atmospheric and Environmental Remote Sensing Data Processing and Utilization II, San Diego, Calif., 16-17 August 2006, Proceedings of SPIE Vol. 6301: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 630109, at http://dx.doi.org/10.1117/12.682590.

Knobelspiesse, K.D., Cairns, B., Schmid, B., Román, M.O., and Schaaf, C.B., 2008, Surface BRDF estimation from an aircraft compared to MODIS and ground estimates at the Southern Great Plains site: Journal of Geophysical Research D—Atmospheres, v. 113, no. 20, citation number D20105, at http://dx.doi.org/10.1029/2008JD010062.

Knorn, J., Kuemmerle, T., Radeloff, V.C., Keeton, W.S., Gancz, V., Biriş, I.A., Svoboda, M., Griffiths, P., Hagatis, A., et al., 2013, Continued loss of temperate old-growth forests in the Romanian Carpathians despite an increasing protected area network: Environmental Conservation, v. 40, no. 2, p. 182-193, at http://dx.doi.org/10.1017/S0376892912000355.

Knorn, J., Kuemmerle, T., Radeloff, V.C., Szabo, A., Mindrescu, M., Keeton, W.S., Abrudan, I., Griffiths, P., Gancz, V., et al., 2012, Forest restitution and protected area effectiveness in post-socialist Romania: Biological Conservation, v. 146, no. 1, p. 204-212, at http://dx.doi.org/10.1016/j.biocon.2011.12.020.

Knorn, J., Rabe, A., Radeloff, V.C., Kuemmerle, T., Kozak, J., and Hostert, P., 2009, Land cover mapping of large areas using chain classification of neighboring Landsat satellite images: Remote Sensing of Environment, v. 113, no. 5, p. 957-964, at http://dx.doi.org/10.1016/j.rse.2009.01.010.

Kongoli, C., Kustas, W.P., Anderson, M.C., Norman, J.M., Alfieri, J.G., Flerchinger, G.N., and Marks, D., 2014, Evaluation of a two-source snow-vegetation energy balance model for estimating surface energy fluxes in a rangeland ecosystem: Journal of Hydrometeorology, v. 15, no. 1, p. 143-158, at http://dx.doi.org/10.1175/JHM-D-12-0153.1.

Koren, I., Oreopoulos, L., Feingold, G., Remer, L.A., and Altaratz, O., 2008, How small is a small cloud?: Atmospheric Chemistry and Physics, v. 8, no. 14, p. 3855-3864, at http://dx.doi.org/10.5194/acp-8-3855-2008.

Korontzi, S., McCarty, J., and Justice, C., 2008, Monitoring agricultural burning in the Mississippi River Valley region from the Moderate Resolution Imaging Spectroradiometer (MODIS): Journal of the Air and Waste Management Association, v. 58, no. 9, p. 1235-1239, at http://dx.doi.org/10.3155/1047-3289.58.9.1235.

Korontzi, S., McCarty, J., Loboda, T., Kumar, S., and Justice, C., 2006, Global distribution of agricultural fires in croplands from 3 years of Moderate Resolution Imaging Spectroradiometer (MODIS) data: Global Biogeochemical Cycles, v. 20, no. 2, citation number GB2021, at http://dx.doi.org/10.1029/2005GB002529.

Kotchenova, S.Y., Vermote, E.F., Levy, R., and Lyapustin, A., 2008, Radiative transfer codes for atmospheric correction and aerosol retrieval—Intercomparison study: Applied Optics, v. 47, no. 13, p. 2215-2226, at http://dx.doi.org/10.1364/AO.47.002215.

Kotchenova, S.Y., Vermote, E.F., Matarrese, R., and Klemm Jr, F.J., 2006, Validation of a vector version of the 6S radiative transfer code for atmospheric correction of satellite data. Part I—Path radiance: Applied Optics, v. 45, no. 26, p. 6762-6774, at http://dx.doi.org/10.1364/AO.45.006762.

Kotehenova, S.Y., and Vermote, E.F., 2007, Validation of a vector version of the 6S radiative transfer code for atmospheric correction of satellite data. Part II. Homogeneous Lambertian and anisotropic surfaces: Applied Optics, v. 46, no. 20, p. 4455-4464, at http://dx.doi.org/10.1364/AO.46.004455.

Kovalskyy, V., Henebry, G.M., Roy, D.P., Adusei, B., Hansen, M., Senay, G., and Mocko, D.M., 2013, Evaluation of a coupled event-driven phenology and evapotranspiration model for croplands in the United States northern Great Plains: Journal of Geophysical Research D—Atmospheres, v. 118, no. 11, p. 5065-5081, at http://dx.doi.org/10.1002/jgrd.50387.

Kovalskyy, V., and Roy, D., 2012, The availability of cloud-free Landsat TM and ETM+ land observations and implications for global Landsat data production, *in* International Conference on Geoinformatics—Theoretical and Applied Aspects, 11th, Kiev, Ukraine, 14-17 May 2012, Proceedings: Netherlands, European Association of Geoscientists and Engineers (EAGE), paper number 14475, at http://earthdoc.eage.org/publication/download/?publication=66451.

Kovalskyy, V., and Roy, D.P., 2013, The global availability of Landsat 5 TM and Landsat 7 ETM+ land surface observations and implications for global 30m Landsat data product generation: Remote Sensing of Environment, v. 130, p. 280-293, at http://dx.doi.org/10.1016/j.rse.2012.12.003.

Kovalskyy, V., and Roy, D.P., 2015, A one year Landsat 8 conterminous United States study of cirrus and non-cirrus clouds: Remote Sensing, v. 7, no. 1, p. 564-578, at http://dx.doi.org/10.3390/rs70100564.

Krajewski, W.F., Anderson, M.C., Eichinger, W.E., Entekhabi, D., Hornbuckle, B.K., Houser, P.R., Katul, G.G., Kustas, W.P., Norman, J.M., et al., 2006, A remote sensing observatory for hydrologic sciences—A genesis for scaling to continental hydrology: Water Resources Research, v. 42, no. 7, citation number W07301, at http://dx.doi.org/10.1029/2005WR004435.

Kramber, W.J., Morse, A., and Allen, R.G., 2010, Mapping evapotranspiration—A remote sensing innovation: Photogrammetric Engineering and Remote Sensing, v. 76, no. 1, p. 6-10, at http://digital.ipcprintservices.com/publication/?i=29101&p=&l=&m=&ver=&pp=.

Kramber, W.J., Morse, A., Allen, R.G., and Trezza, R., 2008, Landsat thermal data for water resources management in Idaho, *in* Bridging the horizons—New frontiers in geospatial collaboration, Annual Conference, Portland, Oreg., 28 April-2 May 2008, Proceedings: Bethesda, Md., American Society for Photogrammetry and Remote Sensing p. 394-398, at http://www.asprs.org/a/publications/proceedings/portland08/0044.pdf.

Krankina, O.N., Pflugmacher, D., Friedl, M., Cohen, W.B., Nelson, P., and Baccini, A., 2008, Meeting the challenge of mapping peatlands with remotely sensed data: Biogeosciences, v. 5, no. 6, p. 1809-1820, at http://dx.doi.org/10.5194/bg-5-1809-2008.

Kuemmerle, T., Chaskovskyy, O., Knorn, J., Radeloff, V.C., Kruhlov, I., Keeton, W.S., and Hostert, P., 2009, Forest cover change and illegal logging in the Ukrainian Carpathians in the transition period from 1988 to 2007: Remote Sensing of Environment, v. 113, no. 6, p. 1194-1207, at http://dx.doi.org/10.1016/j.rse.2009.02.006.

Kuemmerle, T., Damm, A., and Hostert, P., 2008, A method to detect and correct single-band missing pixels in Landsat TM and ETM+ data: Computers and Geosciences, v. 34, no. 5, p. 445-455, at http://dx.doi.org/10.1016/j.cageo.2007.05.016.

Kuemmerle, T., Erb, K., Meyfroidt, P., Müller, D., Verburg, P.H., Estel, S., Haberl, H., Hostert, P., Jepsen, M.R., et al., 2013, Challenges and opportunities in mapping land use intensity globally: Current Opinion in Environmental Sustainability, v. 5, no. 5, p. 484-493, at http://dx.doi.org/10.1016/j.cosust.2013.06.002.

Kuemmerle, T., Hostert, P., Radeloff, V.C., Perzanowski, K., and Kruhlov, I., 2007, Post-socialist forest disturbance in the Carpathian border region of Poland, Slovakia, and Ukraine: Ecological Applications, v. 17, no. 5, p. 1279-1295, at http://dx.doi.org/10.1890/06-1661.1.

Kuemmerle, T., Hostert, P., Radeloff, V.C., Van Der Linden, S., Perzanowski, K., and Kruhlov, I., 2008, Cross-border comparison of post-socialist farmland abandonment in the Carpathians: Ecosystems, v. 11, no. 4, p. 614-628, at http://dx.doi.org/10.1007/s10021-008-9146-z.

Kuemmerle, T., Hostert, P., St-Louis, V., and Radeloff, V.C., 2009, Using image texture to map farmland field size—A case study in Eastern Europe: Journal of Land Use Science, v. 4, no. 1-2, p. 85-107, at http://dx.doi.org/10.1080/17474230802648786.

Kuemmerle, T., Kozak, J., Radeloff, V.C., and Hostert, P., 2009, Differences in forest disturbance among land ownership types in Poland during and after socialism: Journal of Land Use Science, v. 4, no. 1-2, p. 73-83, at http://dx.doi.org/10.1080/17474230802645857.

Kuemmerle, T., Olofsson, P., Chaskovskyy, O., Baumann, M., Ostapowicz, K., Woodcock, C.E., Houghton, R.A., Hostert, P., Keeton, W.S., et al., 2011, Post-Soviet farmland abandonment, forest recovery, and carbon sequestration in western Ukraine: Global Change Biology, v. 17, no. 3, p. 1335-1349, at http://dx.doi.org/10.1111/j.1365-2486.2010.02333.x.

Kuemmerle, T., Perzanowski, K., Chaskovskyy, O., Ostapowicz, K., Halada, L., Bashta, A.T., Kruhlov, I., Hostert, P., Waller, D.M., et al., 2010, European Bison habitat in the Carpathian Mountains: Biological Conservation, v. 143, no. 4, p. 908-916, at http://dx.doi.org/10.1016/j.biocon.2009.12.038.

Kuemmerle, T., Radeloff, V.C., Perzanowski, K., and Hostert, P., 2006, Cross-border comparison of land cover and landscape pattern in Eastern Europe using a hybrid classification technique: Remote Sensing of Environment, v. 103, no. 4, p. 449-464, at http://dx.doi.org/10.1016/j.rse.2006.04.015.

Kuester, M., McCorkel, J., Johnson, B., Kampe, T., Johnson, P., Kaptchen, P., Good, B., Smith, K., and Lasnik, J., 2007, A prototype airborne visible imaging spectrometer (PAVIS), *in* Aerospace Conference, Big Sky, Mont., 3-10 March 2007, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 1-7, at http://dx.doi.org/10.1109/AERO.2007.352688.

Kuester, T., Spengler, D., Barczi, J.F., Segl, K., Hostert, P., and Kaufmann, H., 2013, Simulation of multitemporal and hyperspectral vegetation canopy bidirectional reflectance using detailed virtual 3-D canopy models: IEEE Transactions on Geoscience and Remote Sensing, v. 52, no. 4, p. 2096-2108, at http://dx.doi.org/10.1109/TGRS.2013.2258162.

Kulawardhana, R.W., Thenkabail, P.S., Masiyandima, M., Biradar, C.M., Vithanage, J.C., Finlayson, M., Gunasinghe, S., and Alankara, R., 2006, Evaluation of different methods for delineation of wetlands in Limpopo River Basin using Landsat ETM+ and SRTM data, *in* Lacoste, H., ed., Looking at wetlands from space, International Symposium on GlobWetland, 1st, Frascati, Rome, 19-20 October 2006, Proceedings: Noordwijk, Netherlands, ESA Publications Division, CD-ROM.

Kulawardhana, R.W., Thenkabail, P.S., Vithanage, J., Biradar, C., Islam, M.A., Gunasinghe, S., and Alankara, R., 2007, Evaluation of the wetland mapping methods using Landsat ETM+ and SRTM data: Journal of Spatial Hydrology, v. 7, no. 2, p. 62-96, at http://hdl.handle.net/10568/21603.

Kumar, K.K., Kamala, K., Rajagopalan, B., Hoerling, M.P., Eischeid, J.K., Patwardhan, S.K., Srinivasan, G., Goswami, B.N., and Nemani, R., 2011, The once and future pulse of Indian monsoonal climate: Climate Dynamics, v. 36, no. 11-12, p. 2159-2170, at http://dx.doi.org/10.1007/s00382-010-0974-0.

Kumar, S.S., Roy, D.P., Boschetti, L., and Kremens, R., 2011, Exploiting the power law distribution properties of satellite fire radiative power retrievals—A method to estimate fire radiative energy and biomass burned from sparse satellite observations: Journal of Geophysical Research D—Atmospheres, v. 116, no. 19, citation number D19203, at http://dx.doi.org/10.1029/2011JD015676.

Kustas, W., and Anderson, M., 2009, Advances in thermal infrared remote sensing for land surface modeling: Agricultural and Forest Meteorology, v. 149, no. 12, p. 2071-2081, at http://dx.doi.org/10.1016/j.agrformet.2009.05.016.

Kustas, W.P., Agam, N., Anderson, M.C., Li, F., and Colaizzi, P.D., 2007, Potential errors in the application of thermal-based energy balance models with coarse resolution data, *in* Neale, C.M.U., Owe, M., and D'Urso, G., eds., Remote Sensing for Agriculture, Ecosystems, and Hydrology IX, Florence, Italy, 18–20 September 2007, Proceedings of SPIE Vol. 6742: Bellingham, Wash., Society of

Photo-Optical Instrumentation Engineers (SPIE), article number 674208, at http://dx.doi.org/10.1117/12.737776.

Kustas, W.P., Alfieri, J.G., Anderson, M.C., Colaizzi, P.D., Prueger, J.H., Evett, S.R., Neale, C.M.U., French, A.N., Hipps, L.E., et al., 2012, Evaluating the two-source energy balance model using local thermal and surface flux observations in a strongly advective irrigated agricultural area: Advances in Water Resources, v. 50, p. 120-133, at http://dx.doi.org/10.1016/j.advwatres.2012.07.005.

Kustas, W.P., Anderson, M.C., French, A.N., and Vickers, D., 2006, Using a remote sensing field experiment to investigate flux-footprint relations and flux sampling distributions for tower and aircraft-based observations: Advances in Water Resources, v. 29, no. 2, p. 355-368, at http://dx.doi.org/10.1016/j.advwatres.2005.05.003.

Kustas, W.P., Anderson, M.C., Norman, J.M., and Li, F., 2007, Utility of radiometric-aerodynamic temperature relations for heat flux estimation: Boundary-Layer Meteorology, v. 122, no. 1, p. 167-187, at http://dx.doi.org/10.1007/s10546-006-9093-1.

Kustas, W.P., Anderson, M.C., Semmens, K.A., Alfieri, J.G., Gao, F., Hain, C.R., and Cammalleri, C., 2016, A thermal-based remote sensing modelling system for estimating crop water use and stress from field to regional scales: Acta Horticulturae, v. 1112, p. 71-80, at http://dx.doi.org/10.17660/ActaHortic.2016.1112.10.

Lakshmi, V., Alsdorf, D., Anderson, M., Biancamaria, S., Cosh, M., Entin, J., Huffman, G., Kustas, W., Van Oevelen, P., et al., 2014, Remote Sensing of the Terrestrial Water Cycle: Washington, D.C., AGU and John Wiley & Sons, Inc., 556 p., at http://dx.doi.org/10.1002/9781118872086.

Lang, M.W., McCarty, G.W., and Anderson, M.C., 2008, Wetland hydrology at a watershed scale—Dynamic information for adaptive management: Journal of Soil and Water Conservation, v. 63, no. 2, article number 49A, at http://dx.doi.org/10.2489/jswc.63.2.49A.

Langford, J., Niemann, O., Frazer, G.W., Wulder, M.A., and Nelson, T., 2006, Exploring small footprint lidar intensity data in a forested environment, *in* International Geoscience and Remote Sensing Symposium, Denver, Colo., 31 July-4 August 2006, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 2416-2419, at http://dx.doi.org/10.1109/IGARSS.2006.626.

Langford, W.T., Gergel, S.E., Dietterich, T.G., and Cohen, W., 2006, Map misclassification can cause large errors in landscape pattern indices—Examples from habitat fragmentation: Ecosystems, v. 9, no. 3, p. 474-488, at http://dx.doi.org/10.1007/s10021-005-0119-1.

Langley, K., Kohler, J., Matsuoka, K., Sinisalo, A., Scambos, T., Neumann, T., Muto, A., Winther, J.G., and Albert, M., 2011, Recovery Lakes, East Antarctica—Radar assessment of sub-glacial water extent: Geophysical Research Letters, v. 38, no. 5, citation number L05501, at http://dx.doi.org/10.1029/2010GL046094.

Langley, K., Tinto, K., Block, A., Bell, R., Kohler, J., and Scambos, T., 2014, Onset of fast ice flow in recovery ice stream, east Antarctica—A comparison of potential causes: Journal of Glaciology, v. 60, no. 223, p. 1007-1014, at http://dx.doi.org/10.3189/2014JoG14J067.

Larkin, C.C., Kwit, C., Wunderle, J.M., Helmer, E.H., Stevens, M.H.H., Roberts, M.T.K., and Ewert, D.N., 2012, Disturbance type and plant successional communities in Bahamian dry forests: Biotropica, v. 44, no. 1, p. 10-18, at http://dx.doi.org/10.1111/j.1744-7429.2011.00771.x.

Latorre Carmona, P., Alonso, L., Pla, F., Moreno, J.E., and Schaaf, C., 2011, Affine illumination compensation on hyperspectral/multiangular remote sensing images, *in* Kamel, M., and Campilho, A., eds., Image Analysis and Recognition—8th International Conference, ICIAR 2011, Burnaby, BC, Canada, June 22-24, 2011. Proceedings, Part II: Heidelberg, Germany, Springer, p. 360-369, at http://dx.doi.org/10.1007/978-3-642-21596-4_36.

Lauf, S., Haase, D., Hostert, P., Lakes, T., and Kleinschmit, B., 2012, Uncovering land-use dynamics driven by human decision-making—A combined model approach using cellular automata and system dynamics: Environmental Modelling and Software, v. 27-28, p. 71-82, at http://dx.doi.org/10.1016/j.envsoft.2011.09.005.

Lavoie, C., Domack, E.W., Pettit, E.C., Scambos, T.A., Larter, R.D., Schenke, H.W., Yoo, K.C., Gutt, J., Wellner, J., et al., 2015, Configuration of the Northern Antarctic Peninsula Ice Sheet at LGM based on a new synthesis of seabed imagery: Cryosphere, v. 9, no. 2, p. 613-629, at http://dx.doi.org/10.5194/tc-9-613-2015.

Law, B.E., Turner, D., Campbell, J., Lefsky, M., Guzy, M., Sun, O., Van Tuyl, S., and Cohen, W.B., 2006, Carbon fluxes across regions—Observational constraints at multiple scales, chap. 9 *of* Wu, J., Jones, K.B., Li, H., and Loucks, O.L., eds., Scaling and uncertainty analysis in ecology—Methods and applications: Netherlands, Springer, p. 167-190, at http://dx.doi.org/10.1007/1-4020-4663-4_9.

Lazzara, M.A., Jezek, K.C., Scambos, T.A., MacAyeal, D.R., and Van Der Veen, C.J., 2008, On the recent calving of icebergs from the Ross ice shelf: Polar Geography, v. 31, no. 1-2, p. 15-26, at http://dx.doi.org/10.1080/10889370802175937.

Lee, C.K., Seo, K.W., Han, S.C., Yu, J., and Scambos, T.A., 2012, Ice velocity mapping of Ross Ice Shelf, Antarctica by matching surface undulations measured by ICESat laser altimetry: Remote Sensing of Environment, v. 124, p. 251-258, at http://dx.doi.org/10.1016/j.rse.2012.05.017.

Lee, D., Oreopoulos, L., Huffman, G.J., Rossow, W.B., and Kang, I.S., 2013, The precipitation characteristics of isccp tropical weather states: Journal of Climate, v. 26, no. 3, p. 772-788, at http://dx.doi.org/10.1175/JCLI-D-11-00718.1.

Lee, H., Durand, M., Jung, H.C., Alsdorf, D., Shum, C.K., and Sheng, Y., 2010, Characterization of surface water storage changes in Arctic lakes using simulated SWOT measurements: International Journal of Remote Sensing, v. 31, no. 14, p. 3931-3953, at http://dx.doi.org/10.1080/01431161.2010.483494.

Lefsky, M.A., Harding, D.J., Keller, M., Cohen, W.B., Carabajal, C.C., Del Bom Espirito-Santo, F., Hunter, M.O., de Oliveira Jr, R., and de Camargo, P.B., 2006, Erratum—"Estimates of forest canopy height and aboveground biomass using ICESat" (Geophysical Research Letters (2005) vol. 32 10.1029/2005GL023971): Geophysical Research Letters, v. 33, no. 5, citation number L05501, at http://dx.doi.org/10.1029/2005GL025518.

Lei, Y., Yang, K., Wang, B., Sheng, Y., Bird, B.W., Zhang, G., and Tian, L., 2014, Response of inland lake dynamics over the Tibetan Plateau to climate change: Climatic Change, v. 125, no. 2, p. 281-290, at http://dx.doi.org/10.1007/s10584-014-1175-3.

Lei, Y., Yao, T., Bird, B.W., Yang, K., Zhai, J., and Sheng, Y., 2013, Coherent lake growth on the central Tibetan Plateau since the 1970s—Characterization and attribution: Journal of Hydrology, v. 483, p. 61-67, at http://dx.doi.org/10.1016/j.jhydrol.2013.01.003.

Lei, Y., Yao, T., Sheng, Y., Zhang, E., Wang, W., and Li, J., 2012, Characteristics of δ 13C DIC in lakes on the Tibetan Plateau and its implications for the carbon cycle: Hydrological Processes, v. 26, no. 4, p. 535-543, at http://dx.doi.org/10.1002/hyp.8152.

Lei, Y., Yao, T., Yi, C., Wang, W., Sheng, Y., Li, J., and Joswiak, D., 2012, Glacier mass loss induced the rapid growth of Linggo Co on the central Tibetan Plateau: Journal of Glaciology, v. 58, no. 207, p. 177-184, at http://dx.doi.org/10.3189/2012JoG11J025.

Leitão, P.J., Schwieder, M., Suess, S., Catry, I., Milton, E.J., Moreira, F., Osborne, P.E., Pinto, M.J., van der Linden, S., et al., 2015, Mapping beta diversity from space: Sparse Generalised Dissimilarity Modelling (SGDM) for analysing high-dimensional data: Methods in Ecology and Evolution, v. 6, no. 7, p. 764-771, at http://dx.doi.org/10.1111/2041-210X.12378.

Levy, R.C., Remer, L.A., Mattoo, S., Vermote, E.F., and Kaufman, Y.J., 2007, Second-generation operational algorithm—Retrieval of aerosol properties over land from inversion of Moderate Resolution Imaging Spectroradiometer spectral reflectance: Journal of Geophysical Research D—Atmospheres, v. 112, no. 13, citation number D13211, at http://dx.doi.org/10.1029/2006JD007811.

Lewis, A., Lymburner, L., Purss, M.B.J., Brooke, B., Evans, B., Ip, A., Dekker, A.G., Irons, J.R., Minchin, S., et al., 2016, Rapid, high-resolution detection of environmental change over continental scales from satellite data – the Earth Observation Data Cube: International Journal of Digital Earth, v. 9, no. 1, p. 106-111, at http://dx.doi.org/10.1080/17538947.2015.1111952.

Lewis, P., Quaife, T., Gomez-Dans, J., Disney, M., Wooster, M., Roy, D., and Pinty, B., 2009, Modelling the impact of wildfire on spectral reflectance, *in* International Geoscience and Remote Sensing Symposium, Cape Town, South Africa, 12-17 July 2009, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. IV1019-IV1022, at http://dx.doi.org/10.1109/IGARSS.2009.5417553.

Ley, T.W., Allen, R.G., and Jensen, M.E., 2009, Adjusting wind speed measured over variable height alfalfa for use in the ASCE standardized penman-monteith equation, *in* Starrett, S., ed., Great rivers, World Environmental and Water Resources Congress, Kansas City, Mo., 17-21 May 2009, Proceedings: Reston, Va., American Society of Civil Engineers, p. 4141-4157, at http://dx.doi.org/10.1061/41036(342)418.

Ley, T.W., Allen, R.G., and Jensen, M.E., 2013, Translating wind-speed measurements over alfalfa having varying height for use in the asce standardized reference ET equation: Journal of Irrigation and Drainage Engineering, v. 139, no. 6, p. 463-475, at http://dx.doi.org/10.1061/(ASCE)IR.1943-4774.0000570.

Li, A., Huang, C., Sun, G., Shi, H., Toney, C., Zhu, Z., Rollins, M.G., Goward, S.N., and Masek, J.G., 2011, Modeling the height of young forests regenerating from recent disturbances in Mississippi using Landsat and ICESat data: Remote Sensing of Environment, v. 115, no. 8, p. 1837-1849, at http://dx.doi.org/10.1016/j.rse.2011.03.001.

Li, F., Anderson, M.C., Kustas, W.P., Scott, R.L., and Prueger, J.H., 2006, Utility of satellite thermal remote sensing for mapping riparian and upland desert water use, *in* Conference on Hydrology, 20th and American Meteorological Society, 86th, Atlanta, Ga., 29 January-2 February 2006, Proceedings: Boston, Mass., American Meteorological Society, p. 1-4, at https://ams.confex.com/ams/Annual2006/techprogram/paper_103254.htm.

Li, F., Jupp, D.L.B., Reddy, S., Lymburner, L., Mueller, N., Tan, P., and Islam, A., 2010, An evaluation of the use of atmospheric and BRDF correction to standardize Landsat data: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 3, no. 3, p. 257-270, at http://dx.doi.org/10.1109/JSTARS.2010.2042281.

Li, F., Jupp, D.L.B., Thankappan, M., Lymburner, L., Mueller, N., Lewis, A., and Held, A., 2012, A physics-based atmospheric and BRDF correction for Landsat data over mountainous terrain: Remote Sensing of Environment, v. 124, p. 756-770, at http://dx.doi.org/10.1016/j.rse.2012.06.018.

Li, F., Kustas, W.P., Anderson, M.C., Jackson, T.J., Bindlish, R., and Prueger, J.H., 2006, Comparing the utility of microwave and thermal remote-sensing constraints in two-source energy balance modeling over an agricultural landscape: Remote Sensing of Environment, v. 101, no. 3, p. 315-328, at http://dx.doi.org/10.1016/j.rse.2006.01.001.

Li, F., Kustas, W.P., Anderson, M.C., Prueger, J.H., and Scott, R.L., 2008, Effect of remote sensing spatial resolution on interpreting tower-based flux observations: Remote Sensing of Environment, v. 112, no. 2, p. 337-349, at http://dx.doi.org/10.1016/j.rse.2006.11.032.

Li, J., and Sheng, Y., 2012, An automated scheme for glacial lake dynamics mapping using Landsat imagery and digital elevation models—A case study in the Himalayas: International Journal of Remote Sensing, v. 33, no. 16, p. 5194-5213, at http://dx.doi.org/10.1080/01431161.2012.657370.

Li, J., Zipper, C.E., Donovan, P.F., Wynne, R.H., and Oliphant, A.J., 2015, Reconstructing disturbance history for an intensively mined region by time-series analysis of Landsat imagery: Environmental Monitoring and Assessment, v. 187, no. 9, article number 557, at http://dx.doi.org/10.1007/s10661-015-4766-1.

Li, J., Zipper, C.E., Li, S., Donovan, P.F., Wynne, R.H., Oliphant, A.J., and Xia, Q., 2015, Character analysis of mining disturbance and reclamation trajectory in surface coal-mine area by time-series NDVI: Nongye Gongcheng Xuebao/Transactions of the Chinese Society of Agricultural Engineering, v. 31, no. 16, p. 251-257, at http://dx.doi.org/10.11975/j.issn.1002-6819.2015.16.033.

Li, M., Mao, L., Zhou, C., Vogelmann, J.E., and Zhu, Z., 2010, Comparing forest fragmentation and its drivers in China and the USA with Globcover v2.2: Journal of Environmental Management, v. 91, no. 12, p. 2572-2580, at http://dx.doi.org/10.1016/j.jenvman.2010.07.010.

Li, M., Zhu, Z., Vogelmann, J.E., Xu, D., Wen, W., and Liu, A., 2011, Characterizing fragmentation of the collective forests in southern China from multitemporal Landsat imagery—A case study from Kecheng district of Zhejiang province: Applied Geography, v. 31, no. 3, p. 1026-1035, at http://dx.doi.org/10.1016/j.apgeog.2011.02.004.

Li, R.R., Remer, L., Kaufman, Y.J., Mattoo, S., Gao, B.C., and Vermote, E., 2006, Masking of residual snow and ice covered surfaces for improving aerosol retrievals from MODIS data, *in* International Geoscience and Remote Sensing Symposium, Denver, Colo., 31 July-4 August 2006, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 2236-2238, at http://dx.doi.org/10.1109/IGARSS.2006.578.

Li, Z., Douglas, E., Strahler, A., Schaaf, C., Yang, X., Wang, Z., Yao, T., Zhao, F., Saenz, E.J., et al., 2013, Separating leaves from trunks and branches with dual-wavelength terrestrial lidar scanning, *in* International Geoscience and Remote Sensing Symposium, Melbourne, Australia, 21-26 July 2013, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 3383-3386, at http://dx.doi.org/10.1109/IGARSS.2013.6723554.

Li, Z., Jupp, D.L.B., Strahler, A.H., Schaaf, C.B., Howe, G., Hewawasam, K., Douglas, E.S., Chakrabarti, S., Cook, T.A., et al., 2016, Radiometric calibration of a dual-wavelength, full-waveform terrestrial lidar: Sensors (Switzerland), v. 16, no. 3, at http://dx.doi.org/10.3390/s16030313.

Liang, L., Schwartz, M.D., Wang, Z., Gao, F., Schaaf, C.B., Tan, B., Morisette, J.T., and Zhang, X., 2014, A cross comparison of spatiotemporally enhanced springtime phenological measurements from satellites and ground in a northern U.S. mixed forest: IEEE Transactions on Geoscience and Remote Sensing, v. 52, no. 12, p. 7513 - 7526, at http://dx.doi.org/10.1109/TGRS.2014.2313558.

Liebert, R., Huntington, J., Morton, C., Sueki, S., and Acharya, K., 2016, Reduced evapotranspiration from leaf beetle induced tamarisk defoliation in the Lower Virgin River using satellite-based energy balance: Ecohydrology, v. 9, no. 1, p. 179-193, at http://dx.doi.org/10.1002/eco.1623.

Ligtenberg, S.R.M., Lenaerts, J.T.M., Van Den Broeke, M.R., and Scambos, T.A., 2014, On the formation of blue ice on Byrd Glacier, Antarctica: Journal of Glaciology, v. 60, no. 219, p. 41-50, at http://dx.doi.org/10.3189/2014JoG13J116.

Lindquist, E.J., Hansen, M.C., Roy, D.P., and Justice, C.O., 2008, The suitability of decadal image data sets for mapping tropical forest cover change in the Democratic Republic of Congo—Implications for the global land survey: International Journal of Remote Sensing, v. 29, no. 24, p. 7269-7275, at http://dx.doi.org/10.1080/01431160802275890.

Lipscomb, W., Bindschadler, R., Bueler, E., Holland, D., Johnson, J., and Price, S., 2009, A community ice sheet model for sea level prediction: Eos, v. 90, no. 3, p. 23-23, at http://dx.doi.org/10.1029/2009EO030004.

Liu, J., Liu, S., and Loveland, T.R., 2006, Temporal evolution of carbon budgets of the Appalachian forests in the U.S. from 1972 to 2000: Forest Ecology and Management, v. 222, no. 1-3, p. 191-201, at http://dx.doi.org/10.1016/j.foreco.2005.09.028.

Liu, J., Liu, S., Loveland, T.R., and Tieszen, L.L., 2008, Integrating remotely sensed land cover observations and a biogeochemical model for estimating forest ecosystem carbon dynamics: Ecological Modelling, v. 219, no. 3-4, p. 361-372, at http://dx.doi.org/10.1016/j.ecolmodel.2008.04.019.

Liu, J., Melloh, R.A., Woodcock, C.E., Davis, R.E., Painter, T.H., and McKenzie, C., 2008, Modeling the view angle dependence of gap fractions in forest canopies—Implications for mapping fractional snow cover using optical remote sensing: Journal of Hydrometeorology, v. 9, no. 5, p. 1005-1019, at http://dx.doi.org/10.1175/2008JHM866.1.

Liu, J., Schaaf, C., Strahler, A., Jiao, Z., Shuai, Y., Zhang, Q., Roman, M., Augustine, J.A., and Dutton, E.G., 2009, Validation of moderate resolution imaging spectroradiometer (MODIS) albedo retrieval algorithm—Dependence of albedo on solar zenith angle: Journal of Geophysical Research D—Atmospheres, v. 114, no. 1, citation number D01106, at http://dx.doi.org/10.1029/2008JD009969.

Liu, J., Vogelmann, J.E., Zhu, Z., Key, C.H., Sleeter, B.M., Price, D.T., Chen, J.M., Cochrane, M.A., Eidenshink, J.C., et al., 2011, Estimating California ecosystem carbon change using process model and land cover disturbance data—1951-2000: Ecological Modelling, v. 222, no. 14, p. 2333-2341, at http://dx.doi.org/10.1016/j.ecolmodel.2011.03.042.

Liu, L., Liang, L., Schwartz, M.D., Donnelly, A., Wang, Z., Schaaf, C.B., and Liu, L., 2015, Evaluating the potential of MODIS satellite data to track temporal dynamics of autumn phenology in a temperate mixed forest: Remote Sensing of Environment, v. 160, p. 156-165, at http://dx.doi.org/10.1016/j.rse.2015.01.011.

Liu, S., Ding, W., Gao, F., and Stepinski, T.F., 2012, Adaptive Selective Learning for automatic identification of sub-kilometer craters: Neurocomputing, v. 92, p. 78-87, at http://dx.doi.org/10.1016/j.neucom.2011.11.023.

Liu, S., Li, Z., Liu, J., Loveland, T., Chen, M., and Tieszen, L., 2006, Upscaling terrestrial carbon dynamics from sites to regions with uncertainty measures—The GEMS experience, *in* Larocque, G.R., ed., Biennial Meeting, International Environmental Modelling and Software Society, 3rd, Burlington, Vt., 9-13 August 2006, Proceedings: St. Louis, Mo., Elsevier, p. 1-6, at http://www.iemss.org/iemss2006/papers/w15/371_Liu_0.pdf.

Liu, W., Song, C., Schroeder, T.A., and Cohen, W.B., 2008, Predicting forest successional stages using multitemporal Landsat imagery with forest inventory and analysis data: International Journal of Remote Sensing, v. 29, no. 13, p. 3855-3872, at http://dx.doi.org/10.1080/01431160701840166.

Loboda, T.V., Giglio, L., Boschetti, L., and Justice, C.O., 2012, Regional fire monitoring and characterization using global NASA MODIS fire products in dry lands of Central Asia: Frontiers of Earth Science, v. 6, no. 2, p. 196-205, at http://dx.doi.org/10.1007/s11707-012-0313-3.

Lobser, S.E., and Cohen, W.B., 2007, MODIS tasselled cap—Land cover characteristics expressed through transformed MODIS data: International Journal of Remote Sensing, v. 28, no. 22, p. 5079-5101, at http://dx.doi.org/10.1080/01431160701253303.

Long, J., Nelson, T., and Wulder, M., 2010, Regionalization of landscape pattern indices using multivariate cluster analysis: Environmental Management, v. 46, no. 1, p. 134-142, at http://dx.doi.org/10.1007/s00267-010-9510-6.

Long, J.A., Nelson, T.A., and Wulder, M.A., 2010, Characterizing forest fragmentation—Distinguishing change in composition from configuration: Applied Geography, v. 30, no. 3, p. 426-435, at http://dx.doi.org/10.1016/j.apgeog.2009.12.002.

Long, J.A., Nelson, T.A., and Wulder, M.A., 2010, Local indicators for categorical data—Impacts of scaling decisions: Canadian Geographer, v. 54, no. 1, p. 15-28, at http://dx.doi.org/10.1111/j.1541-0064.2009.00300.x.

Lorent, H., Sonnenschein, R., Tsiourlis, G.M., Hostert, P., and Lambin, E., 2009, Livestock subsidies and rangeland degradation in central Crete: Ecology and Society, v. 14, no. 2, article number 41, at http://www.ecologyandsociety.org/vol14/iss2/art41/.

Loveland, T.R., Cochrane, M.A., and Henebry, G.M., 2008, Landsat still contributing to environmental research: Trends in Ecology and Evolution, v. 23, no. 4, p. 182-183, at http://dx.doi.org/10.1016/j.tree.2008.01.002.

Loveland, T.R., and Dwyer, J.L., 2012, Landsat—Building a strong future: Remote Sensing of Environment, v. 122, p. 22-29, at http://dx.doi.org/10.1016/j.rse.2011.09.022.

Loveland, T.R., and Mahmood, R., 2014, A design for a sustained assessment of climate forcing and feedbacks related to land use and land cover change: Bulletin of the American Meteorological Society, v. 95, no. 10, p. 1563-1572, at http://dx.doi.org/10.1175/BAMS-D-12-00208.1.

Lugo, A.E., Helmer, E.H., and Valentín, E.S., 2012, Caribbean landscapes and their biodiversity: Interciencia, v. 37, no. 9, p. 705-710, at http://www.redalyc.org/pdf/339/33925502008.pdf.

Lyapustin, A., Gatebe, C.K., Kahn, R., Brandt, R., Redemann, J., Russell, P., King, M.D., Pedersen, C.A., Gerland, S., et al., 2010, Analysis of snow bidirectional reflectance from ARCTAS spring-2008

campaign: Atmospheric Chemistry and Physics, v. 10, no. 9, p. 4359-4375, at http://dx.doi.org/10.5194/acp-10-4359-2010.

Lymburner, L., Botha, E., Hestir, E., Anstee, J., Sagar, S., Dekker, A., and Malthus, T., 2016, Landsat 8—Providing continuity and increased precision for measuring multi-decadal time series of total suspended matter: Remote Sensing of Environment, at http://dx.doi.org/10.1016/j.rse.2016.04.011.

Lymburner, L., McIntyre, A., Li, F., Ip, A., Thankappan, M., and Sixsmith, J., 2013, Creating multi-sensor time series using data from Landsat-5 TM and Landsat-7 ETM+ to characterise vegetation dynamics, *in* International Geoscience and Remote Sensing Symposium, Melbourne, Australia, 21-26 July 2013, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 961-963, at http://dx.doi.org/10.1109/IGARSS.2013.6721321.

Lymburner, L., Tan, P., McIntyre, A., Lewis, A., and Thankappan, M., 2013, Dynamic land cover dataset version 2—2001-now...a land cover odyssey, *in* International Geoscience and Remote Sensing Symposium, Melbourne, Australia, 21-26 July 2013, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 3297-3300, at http://dx.doi.org/10.1109/IGARSS.2013.6723532.

Lyons, E.A., Sheng, Y., Smith, L.C., Li, J., Hinkel, K.M., Lenters, J.D., and Wang, J., 2013, Quantifying sources of error in multitemporal multisensor lake mapping: International Journal of Remote Sensing, v. 34, no. 22, p. 7887-7905, at http://dx.doi.org/10.1080/01431161.2013.827343.

MacDonald, G.M., Beilman, D.W., Kremenetski, K.V., Sheng, Y., Smith, L.C., and Velichko, A.A., 2006, Rapid early development of circumarctic peatlands and atmospheric CH 4 and CO2 variations: Science, v. 314, no. 5797, p. 285-288, at http://dx.doi.org/10.1126/science.1131722.

Magnussen, S., Allard, D., and Wulder, M., 2006, Poisson Voronoï tiling for finding clusters in spatial point patterns: Scandinavian Journal of Forest Research, v. 21, no. 3, p. 239-248, at http://dx.doi.org/10.1080/02827580600688178.

Magnussen, S., Næsset, E., and Wulder, M.A., 2007, Efficient multiresolution spatial predictions for large data arrays: Remote Sensing of Environment, v. 109, no. 4, p. 451-463, at http://dx.doi.org/10.1016/j.rse.2007.01.018.

Magnussen, S., and Wulder, M.A., 2012, Post-fire canopy height recovery in Canada's boreal forests using airborne laser scanner (ALS): Remote Sensing, v. 4, no. 6, p. 1600-1616, at http://dx.doi.org/10.3390/rs4061600.

Maiersperger, T.K., Scaramuzza, P.L., Leigh, L., Shrestha, S., Gallo, K.P., Jenkerson, C.B., and Dwyer, J.L., 2013, Characterizing LEDAPS surface reflectance products by comparisons with AERONET, field spectrometer, and MODIS data: Remote Sensing of Environment, v. 136, p. 1-13, at http://dx.doi.org/10.1016/j.rse.2013.04.007.

Maignan, F., Bréon, F.M., Vermote, E., Ciais, P., and Viovy, N., 2008, Mild winter and spring 2007 over western Europe led to a widespread early vegetation onset: Geophysical Research Letters, v. 35, no. 2, citation number L02404, at http://dx.doi.org/10.1029/2007GL032472.

Main-Knorn, M., Cohen, W.B., Kennedy, R.E., Grodzki, W., Pflugmacher, D., Griffiths, P., and Hostert, P., 2013, Monitoring coniferous forest biomass change using a Landsat trajectory-based approach: Remote Sensing of Environment, v. 139, p. 277-290, at http://dx.doi.org/10.1016/j.rse.2013.08.010.

Main-Knorn, M., Hostert, P., Kozak, J., and Kuemmerle, T., 2009, How pollution legacies and land use histories shape post-communist forest cover trends in the Western Carpathians: Forest Ecology and Management, v. 258, no. 2, p. 60-70, at http://dx.doi.org/10.1016/j.foreco.2009.03.034.

Main-Knorn, M., Moisen, G.G., Healey, S.P., Keeton, W.S., Freeman, E.A., and Hostert, P., 2011, Evaluating the remote sensing and inventory-based estimation of biomass in the western Carpathians: Remote Sensing, v. 3, no. 7, p. 1427-1446, at http://dx.doi.org/10.3390/rs3071427.

Malla, R., and Helder, D.L., 2008, Radiometric calibration of reflective bands of Landsat 4 thematic mapper using pseudo-invariant site technique, *in* International Geoscience and Remote Sensing Symposium, Boston, Mass., 7-11 July 2008, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. IV1344-IV1347, at http://dx.doi.org/10.1109/IGARSS.2008.4779980.

Mandl, D., Sohlberg, R., Justice, C., Ungar, S., Ames, T., Frye, S., Chien, S., Cappelaere, P., and Tran, D., 2007, Experiments with user centric GEOSS architectures, *in* International Geoscience and Remote Sensing Symposium, Barcelona, Spain, 23-28 July 2007, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 297-300, at http://dx.doi.org/10.1109/IGARSS.2007.4422789.

Mandl, D., Sohlberg, R., Justice, C., Ungar, S., Ames, T., Frye, S., Chien, S., Tran, D., Cappelaere, P., et al., 2007, Sensor webs with a service-oriented architecture for on-demand science products, *in* Goldberg, M.D., Bloom, H.J., Huang, A.H., and Ardanuy, P.E., eds., Readiness for GEOSS, Atmospheric and Environmental Remote Sensing Data Processing and Utilization III, San Diego, Calif., 27-30 August 2007, Proceedings of SPIE Vol. 6684: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 668414, at http://dx.doi/org/10.1117/12.735944.

Mandl, D., Sohlberg, R., Justice, C., Ungar, S., Ames, T., Frye, S., Chien, S., Tran, D., Cappelaere, P., et al., 2008, A space-based sensor web for disaster management, *in* International Geoscience and Remote Sensing Symposium, Boston, MA, 7-11 July 2008, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. V294-V297, at http://dx.doi/org/10.1109/IGARSS.2008.4780086.

Margolis, H.A., Nelson, R.F., Montesano, P.M., Beaudoin, A., Sun, G., Andersen, H.E., and Wulder, M.A., 2015, Combining satellite lidar, airborne lidar, and ground plots to estimate the amount and distribution of aboveground biomass in the boreal forest of North America: Canadian Journal of Forest Research, v. 45, no. 7, p. 838-855, at http://dx.doi.org/10.1139/cjfr-2015-0006.

Mariotto, I., Thenkabail, P.S., Huete, A., Slonecker, E.T., and Platonov, A., 2013, Hyperspectral versus multispectral crop-productivity modeling and type discrimination for the HyspIRI mission: Remote Sensing of Environment, v. 139, p. 291-305, at http://dx.doi.org/10.1016/j.rse.2013.08.002.

Markham, B., Goward, S., Arvidson, T., Barsi, J., and Scaramuzza, P., 2006, Landsat-7 long-term acquisition plan radiometry—Evolution over time: Photogrammetric Engineering and Remote Sensing, v. 72, no. 10, p. 1129-1135, at http://dx.doi.org/10.14358/PERS.72.10.1129.

Markham, B.L., Barsi, J.A., Helder, D.L., Thome, K.J., and Barker, J.L., 2006, Evaluation of the Landsat-5 TM radiometric calibration history using desert test sites, *in* Meynart, R., Neeck, S.P., and Shimoda, H., eds., Sensors, Systems, and Next-Generation Satellites X, Stockholm, Sweden, 11-13 September 2006, Proceedings of SPIE Vol. 6361: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 63610V, at http://dx.doi.org/10.1117/12.690065.

Markham, B.L., Barsi, J.A., Kaita, E., Ong, L., Haque, M.O., Mishra, N., Czapla-Myers, J., Pahlevan, N., and Helder, D., 2014, Landsat-8 Operational Land Imager on-orbit radiometric calibration and stability, *in* Butler, J.J., Xiong, X., and Gu, X., eds., Earth Observing Systems XIX, San Diego, Calif., 18-20 August 2014, Proceedings of SPIE Vol. 9218: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 921815, at http://dx.doi.org/10.1117/12.2063159.

Markham, B.L., Dabney, P.W., Reuter, D., Thome, K.J., Irons, J.R., Barsi, J.A., and Montanaro, M., 2011, Landsat Data Continuity Mission operational land imager and thermal infrared sensor performance, *in* Butler, J.J., Xiong, X., and Gu, X.F., eds., Earth Observing Systems XVI, San Diego, Calif., 23-25 August 2011, Proceedings of SPIE Vol. 8153: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 81530D, at http://dx.doi/org/10.1117/12.895542.

Markham, B.L., Haque, M.O., Barsi, J.A., Micijevic, E., Helder, D.L., Thome, K.J., Aaron, D., and Czapla-Myers, J.S., 2012, Landsat-7 ETM+—12 years on-orbit reflective-band radiometric performance: IEEE Transactions on Geoscience and Remote Sensing, v. 50, no. 5 PART 2, p. 2056-2062, at http://dx.doi.org/10.1109/TGRS.2011.2169803.

Markham, B.L., and Helder, D.L., 2012, Forty-year calibrated record of earth-reflected radiance from Landsat—A review: Remote Sensing of Environment, v. 122, p. 30-40, at http://dx.doi.org/10.1016/j.rse.2011.06.026.

Markham, B.L., Knight, E.J., Canova, B., Donley, E., Kvaran, G., Lee, K., Barsi, J.A., Pedelty, J.A., Dabney, P.W., et al., 2012, The Landsat Data Continuity Mission Operational Land Imager (OLI) sensor, *in* International Geoscience and Remote Sensing Symposium, Munich, Germany, 22-27 July 2012, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 6995-6998, at http://dx.doi/org/10.1109/IGARSS.2012.6351961.

Markham, B.L., Ong, L., Barsi, J.A., Mendenhall, J.A., Lencioni, D.E., Helder, D.L., Hollaren, D.M., and Morfitt, R., 2006, Radiometric calibration stability of the EO-1 Advanced Land Imager—5 years on-orbit, *in* Meynart, R., Neeck, S.P., and Shimoda, H., eds., Sensors, Systems, and Next-Generation Satellites X, Stockholm, Sweden, 11-13 September 2006, Proceedings of SPIE Vol. 6361: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 63610U, at http://dx.doi.org/10.1117/12.690058.

Markham, B.L., Storey, J.C., and Irons, J.R., 2013, Landsat Data Continuity Mission - now Landsat-8—six months on orbit, *in* Butler, J.J., X., X., and Gu, X., eds., Earth Observing Systems XVIII, San Diego, Calif., 26-29 August 2013, Proceedings of SPIE Vol. 8866: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 88661B, at http://dx.doi/org/10.1117/12.2025290.

Martin, S., Drucker, R., Aster, R., Davey, F., Okal, E., Scambos, T., and MacAyeal, D., 2010, Kinematic and seismic analysis of giant tabular Iceberg breakup at Cape Adare, Antarctica: Journal of Geophysical Research B—Solid Earth, v. 115, no. 6, citation number B06311, at http://dx.doi.org/10.1029/2009JB006700.

Martinuzzi, S., Lugo, A.E., Brandeis, T.J., and Helmer, E.H., 2013, Case study—Geographic distribution and level of novelty of Puerto Rican forests, *in* Hobbs, R.J., Higgs, E.S., and Hall, C.M., eds., Novel ecosystems—Intervening in the new ecological world order: Chichester, UK, John Wiley & Sons, Ltd., p. 81-87, at http://dx.doi.org/10.1002/9781118354186.ch9.

Marx, A., and Goward, S., 2013, Remote sensing in human rights and international humanitarian law monitoring—Concepts and methods: Geographical Review, v. 103, no. 1, p. 100-111, at http://dx.doi.org/10.1111/j.1931-0846.2013.00188.x.

Masek, J.G., Cohen, W.B., Leckie, D., Wulder, M.A., Vargas, R., De Jong, B., Healey, S., Law, B., Birdsey, R., et al., 2011, Recent rates of forest harvest and conversion in North America: Journal of Geophysical Research G—Biogeosciences, v. 116, no. 2, citation number G00K03, at http://dx.doi.org/10.1029/2010JG001471.

Masek, J.G., and Collatz, G.J., 2006, Estimating forest carbon fluxes in a disturbed southeastern landscape—Integration of remote sensing, forest inventory, and biogeochemical modeling: Journal of Geophysical Research G—Biogeosciences, v. 111, no. 1, citation number G01006, at http://dx.doi.org/10.1029/2005JG000062.

Masek, J.G., Goward, S.N., Kennedy, R.E., Cohen, W.B., Moisen, G.G., Schleeweis, K., and Huang, C., 2013, United States forest disturbance trends observed using Landsat time series: Ecosystems, v. 16, no. 6, p. 1087-1104, at http://dx.doi.org/10.1007/s10021-013-9669-9.

Masek, J.G., Huang, C., Wolfe, R., Cohen, W., Hall, F., Kutler, J., and Nelson, P., 2008, North American forest disturbance mapped from a decadal Landsat record: Remote Sensing of Environment, v. 112, no. 6, p. 2914-2926, at http://dx.doi.org/10.1016/j.rse.2008.02.010.

Masek, J.G., Vermote, E.F., Saleous, N.E., Wolfe, R., Hall, F.G., Huemmrich, K.F., Gao, F., Kutler, J., and Lim, T.K., 2006, A Landsat surface reflectance dataset for North America, 1990-2000: IEEE Geoscience and Remote Sensing Letters, v. 3, no. 1, p. 68-72, at http://dx.doi.org/10.1109/LGRS.2005.857030.

Masek, J.G., Wolfe, R., Hall, F., Cohen, W., Kennedy, R., Powell, S., Goward, S., Huang, C., Healey, S., et al., 2007, Assessing North American forest disturbance from the Landsat archive, *in* International Geoscience and Remote Sensing Symposium, Barcelona, Spain, 23-28 July 2007, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 5294-5297, at http://dx.doi.org/10.1109/IGARSS.2007.4424057.

Massom, R.A., Stammerjohn, S.E., Lefebvre, W., Harangozo, S.A., Adams, N., Scambos, T.A., Pook, M.J., and Fowler, C., 2008, West Antarctic Peninsula sea ice in 2005—Extreme ice compaction and ice edge retreat due to strong anomaly with respect to climate: Journal of Geophysical Research C—Oceans, v. 113, no. 2, citation number C02S20, at http://dx.doi.org/10.1029/2007JC004239.

Massom, R.A., Worby, A., Lytle, V., Markus, T., Allison, I., Scambos, T., Enomoto, H., Tateyama, K., Haran, T., et al., 2006, ARISE (Antarctic Remote Ice Sensing Experiment) in the East 2003—Validation of satellite-derived sea-ice data products: Annals of Glaciology, v. 44, no. 1, p. 288-296, at http://dx.doi.org/10.3189/172756406781811268.

Masuoka, E., Roy, D., Wolfe, R., Morisette, J., Sinno, S., Teague, M., Saleous, N., Devadiga, S., Justice, C.O., et al., 2011, MODIS land data products—Generation, quality assurance and validation, Remote Sensing and Digital Image Processing, v. 11, p. 509-531, at http://dx.doi.org/10.1007/978-1-4419-6749-7_22.

Matsuoka, K., Hindmarsh, R.C.A., Moholdt, G., Bentley, M.J., Pritchard, H.D., Brown, J., Conway, H., Drews, R., Durand, G., et al., 2015, Antarctic ice rises and rumples—Their properties and significance for ice-sheet dynamics and evolution: Earth-Science Reviews, v. 150, p. 724-745, at http://dx.doi.org/10.1016/j.earscirev.2015.09.004.

Maxwell, S.K., 2011, Downscaling pesticide use data to the crop field level in california using Landsat satellite imagery—Paraquat case study: Remote Sensing, v. 3, no. 9, p. 1805-1816, at http://dx.doi.org/10.3390/rs3091805.

Maxwell, S.K., 2010, Generating land cover boundaries from remotely sensed data using object-based image analysis—Overview and epidemiological application: Spatial and Spatio-temporal Epidemiology, v. 1, no. 4, p. 231-237, at http://dx.doi.org/10.1016/j.sste.2010.09.005.

Maxwell, S.K., Airola, M., and Nuckols, J.R., 2010, Using Landsat satellite data to support pesticide exposure assessment in California: International Journal of Health Geographics, v. 9, no. 46, p. 1-14, at http://dx.doi.org/10.1186/1476-072X-9-46.

Maxwell, S.K., and Craig, M.E., 2008, Use of Landsat ETM+ SLC-off segment-based gap-filled imagery for crop type mapping: Geocarto International, v. 23, no. 3, p. 169-179, at http://dx.doi.org/10.1080/10106040701207399.

Maxwell, S.K., Meliker, J.R., and Goovaerts, P., 2010, Use of land surface remotely sensed satellite and airborne data for environmental exposure assessment in cancer research: Journal of Exposure Science and Environmental Epidemiology, v. 20, no. 2, p. 176-185, at http://dx.doi.org/10.1038/jes.2009.7.

Maxwell, S.K., Nuckols, J.R., and Ward, M.H., 2006, A method for mapping corn using the US Geological Survey 1992 National Land Cover Dataset: Computers and Electronics in Agriculture, v. 51, no. 1-2, p. 54-65, at http://dx.doi.org/10.1016/j.compag.2005.11.003.

Maxwell, S.K., Schmidt, G.L., and Storey, J.C., 2007, A multi-scale segmentation approach to filling gaps in Landsat ETM+ SLC-off images: International Journal of Remote Sensing, v. 28, no. 23, p. 5339-5356, at http://dx.doi.org/10.1080/01431160601034902.

Maxwell, S.K., and Sylvester, K.M., 2012, Identification of “ever-cropped” land (1984-2010) using Landsat annual maximum NDVI image composites—Southwestern Kansas case study: Remote Sensing of Environment, v. 121, p. 186-195, at http://dx.doi.org/10.1016/j.rse.2012.01.022.

Maxwell, S.K., Wood, E.C., and Janus, A., 2008, Comparison of the USGS 2001 NLCD to the 2002 USDA Census of Agriculture for the upper midwest United States: Agriculture, Ecosystems and Environment, v. 127, no. 1-2, p. 141-145, at http://dx.doi.org/10.1016/j.agee.2008.03.012.

Mayaux, P., Pekel, J.F., Desclée, B., Donnay, F., Lupi, A., Achard, F., Clerici, M., Bodart, C., Brink, A., et al., 2013, State and evolution of the African rainforests between 1990 and 2010: Philosophical Transactions of the Royal Society B—Biological Sciences, v. 368, no. 1625, paper number 20120300, at http://dx.doi.org/10.1098/rstb.2012.0300.

Mayaux, P., Tadoum, M., De Wasseige, C., Eba’a Atyi, R., Billand, A., Nasi, R., Defourny, P., Bayol, N., Cassagne, B., et al., 2009, The observatory for forests of central Africa, *in* Sustaining the millennium development goals, International Symposium on Remote Sensing of Environment, 33rd, Stresa, Italy, 4-8 May 2009, Proceedings: Tucson, Ariz., International Center for Remote Sensing of Environment, p. 681-684.

McCabe, M.F., Houborg, R., Rosas, J., Ershadi, A., Anderson, M., and Hain, C., 2015, Towards a satellite based system for monitoring agricultural water use—A case study for Saudi Arabia, *in* International Geoscience and Remote Sensing Symposium, Milan, Italy, 26-31 July 2015, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 862-865, article number 7325901, at http://dx.doi.org/10.1109/IGARSS.2015.7325901.

McCarty, J.L., Justice, C.O., and Korontzi, S., 2007, Agricultural burning in the southeastern United States detected by MODIS: Remote Sensing of Environment, v. 108, no. 2, p. 151-162, at http://dx.doi.org/10.1016/j.rse.2006.03.020.

McCarty, J.L., Korontzi, S., Justice, C.O., and Loboda, T., 2009, The spatial and temporal distribution of crop residue burning in the contiguous United States: Science of the Total Environment, v. 407, no. 21, p. 5701-5712, at http://dx.doi.org/10.1016/j.scitotenv.2009.07.009.

McCorkel, J., 2014, Cross-calibration of earth observing system terra satellite sensors MODIS and ASTER, *in* Bulter, J.J., Xiong, X., and Gu, X., eds., Earth Observing Systems XIX, San Diego, Calif., 18-20 August 2014, Proceedings of SPIE Vol. 9218: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 92180x, at http://dx.doi.org/10.1117/12.2062498.

McCorkel, J., Cairns, B., and Wasilewski, A., 2016, Imager-to-radiometer in-flight cross calibration—RSP radiometric comparison with airborne and satellite sensors: Atmospheric Measurement Techniques, v. 9, no. 3, p. 955-962, at http://dx.doi.org/10.5194/amt-9-955-2016.

McCorkel, J., Czapla-Myers, J., Thome, K., and Wenny, B., 2015, Online resource for Earth-observing satellite sensor calibration, *in* Butler, J.J., Xiong, X., and Gu, X., eds., Earth Observing Systems XX, San Diego, Calif., 9 August 2015, Proceedings of SPIE Vol. 9607: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 96070b, at http://dx.doi.org/10.1117/12.2188741.

McCorkel, J., Thome, K., Biggar, S., and Kuester, M., 2006, Radiometric calibration of advanced land imager using reflectance-based results between 2001 and 2005, *in* Butler, J.J., and Xiong, J., eds., Earth Observing Systems XI, San Diego, Calif., 14-16 August 2006, Proceedings of SPIE Vol. 6296: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 62960G, at http://dx.doi.org/10.1117/12.679892.

McCorkel, J., Thome, K., Leisso, N., Anderson, N., and Czapla-Myers, J., 2009, Radiometric characterization of hyperspectral imagers using multispectral sensors, *in* Butler, J.J., Xiong, X., and Gu, X.F., eds., Earth Observing Systems XIV, San Diego, Calif., 3-5 August 2009, Proceedings of SPIE Vol. 7452: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 745210, at http://dx.doi.org/10.1117/12.828608.

McCorkel, J., Thome, K., and Lockwood, R.B., 2013, Absolute radiometric calibration of narrow-swath imaging sensors with reference to non-coincident wide-swath sensors: IEEE Transactions on Geoscience and Remote Sensing, v. 51, no. 3, p. 1309-1318, at http://dx.doi.org/10.1109/TGRS.2012.2219874.

McCorkel, J., Thome, K., and Ong, L., 2013, Vicarious calibration of EO-1 Hyperion: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 6, no. 2, p. 400-407, at http://dx.doi.org/10.1109/JSTARS.2012.2225417.

McEvoy, D.J., Huntington, J.L., Abatzoglou, J.T., and Edwards, L.M., 2012, An evaluation of multiscalar drought indices in Nevada and Eastern California: Earth Interactions, v. 16, no. 18, p. 1-18, at http://dx.doi.org/10.1175/2012EI000447.1.

McEvoy, D.J., Huntington, J.L., Hobbins, M.T., Wood, A., Morton, C., Anderson, M., and Hain, C., 2016, The evaporative demand drought index. Part II: CONUS-wide assessment against common drought indicators: Journal of Hydrometeorology, v. 17, no. 6, p. 1763-1779, at http://dx.doi.org/10.1175/JHM-D-15-0122.1.

McEvoy, D.J., Huntington, J.L., Mejia, J.F., and Hobbins, M.T., 2016, Improved seasonal drought forecasts using reference evapotranspiration anomalies: Geophysical Research Letters, v. 43, no. 1, p. 377-385, at http://dx.doi.org/10.1002/2015GL067009.

McEvoy, D.J., Mejia, J.F., and Huntington, J.L., 2014, Use of an observation network in the Great Basin to evaluate gridded climate data: Journal of Hydrometeorology, v. 15, no. 5, p. 1913-1931, at http://dx.doi.org/10.1175/JHM-D-14-0015.1.

McGee Iii, J.A., Day, S.D., Wynne, R.H., and White, M.B., 2012, Using geospatial tools to assess the urban tree canopy—Decision support for local governments: Journal of Forestry, v. 110, no. 5, p. 275-286, at http://dx.doi.org/10.5849/jof.11-052.

McGrath, D., Steffen, K., Holland, P.R., Scambos, T., Rajaram, H., Abdalati, W., and Rignot, E., 2014, The structure and effect of suture zones in the Larsen C Ice Shelf, Antarctica: Journal of Geophysical Research F—Earth Surface, v. 119, no. 3, p. 588-602, at http://dx.doi.org/10.1002/2013JF002935.

McGrath, D., Steffen, K., Rajaram, H., Scambos, T., Abdalati, W., and Rignot, E., 2012, Basal crevasses on the Larsen C Ice Shelf, Antarctica—Implications for meltwater ponding and hydrofracture: Geophysical Research Letters, v. 39, no. 16, citation number L16504, at http://dx.doi.org/10.1029/2012GL052413.

McGrath, D., Steffen, K., Scambos, T., Rajaram, H., Casassa, G., and Rodriguez Lagos, J.L., 2012, Basal crevasses and associated surface crevassing on the larsen c ice shelf, antarctica, and their role in ice-shelf instability: Annals of Glaciology, v. 53, no. 60, p. 10-18, at http://dx.doi.org/10.3189/2012AoG60A005.

McLane, A.J., McDermid, G.J., and Wulder, M.A., 2009, Processing discrete-return profiling lidar data to estimate canopy closure for large-area forest mapping and management: Canadian Journal of Remote Sensing, v. 35, no. 3, p. 217-229, at http://dx.doi.org/10.5589/m09-009.

McManus, K.M., Morton, D.C., Masek, J.G., Wang, D., Sexton, J.O., Nagol, J.R., Ropars, P., and Boudreau, S., 2012, Satellite-based evidence for shrub and graminoid tundra expansion in northern Quebec from 1986 to 2010: Global Change Biology, v. 18, no. 7, p. 2313-2323, at http://dx.doi.org/10.1111/j.1365-2486.2012.02708.x.

McRoberts, R.E., Cohen, W.B., Erik, N., Stehman, S.V., and Tomppo, E.O., 2010, Using remotely sensed data to construct and assess forest attribute maps and related spatial products: Scandinavian Journal of Forest Research, v. 25, no. 4, p. 340-367, at http://dx.doi.org/10.1080/02827581.2010.497496.

McRoberts, R.E., Cohen, W.B., and Pflugmacher, D., 2014, Preface, 2012 ForestSAT Special Issue: Remote Sensing of Environment, v. 151, p. 1-2, at http://dx.doi.org/10.1016/j.rse.2014.02.010.

Meier, G.A., Brown, J.F., Evelsizer, R.J., and Vogelmann, J.E., 2015, Phenology and climate relationships in aspen (Populus tremuloides Michx.) forest and woodland communities of southwestern Colorado: Ecological Indicators, v. 48, p. 189-197, at http://dx.doi.org/10.1016/j.ecolind.2014.05.033.

Meigs, G.W., Kennedy, R.E., and Cohen, W.B., 2011, A Landsat time series approach to characterize bark beetle and defoliator impacts on tree mortality and surface fuels in conifer forests: Remote Sensing of Environment, v. 115, no. 12, p. 3707-3718, at http://dx.doi.org/10.1016/j.rse.2011.09.009.

Meigs, G.W., Zald, H.S.J., Campbell, J.L., Keeton, W.S., and Kennedy, R.E., 2016, Do insect outbreaks reduce the severity of subsequent forest fires?: Environmental Research Letters, v. 11, no. 4, at http://dx.doi.org/10.1088/1748-9326/11/4/045008.

Mejia, J.F., Niswonger, R.G., and Huntington, J., 2014, Uncertainty transfer in modeling layers—From GCM to downscaling to hydrologic surface-groundwater modeling, *in* Ames, D.P., quinn, N.W.T., and Rizzoli, A.E., eds., Bold visions for environmental modeling, International Congress on Environmental Modelling and Software, 7th, San Diego, Calif., 15-19 June 2014, Proceedings: Switzerland, International Environmental Modelling & Software Society, p. 447-454, at http://www.iemss.org/sites/iemss2014/proceedings.php.

Melesse, A.M., Weng, Q., Thenkabail, P.S., and Senay, G.B., 2007, Remote sensing sensors and applications in environmental resources mapping and modelling: Sensors, v. 7, no. 12, p. 3209-3241, at http://dx.doi.org/10.3390/s7123209.

Melton, F.S., Johnson, L.F., Lund, C.P., Pierce, L.L., Michaelis, A.R., Hiatt, S.H., Guzman, A., Adhikari, D.D., Purdy, A.J., et al., 2012, Satellite irrigation management support with the terrestrial observation and prediction system—A framework for integration of satellite and surface observations to support improvements in agricultural water resource management: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 5, no. 6, p. 1709-1721, at http://dx.doi.org/10.1109/JSTARS.2012.2214474.

Mertz, O., Müller, D., Sikor, T., Hett, C., Heinimann, A., Castella, J.C., Lestrelin, G., Ryan, C.M., Reay, D.S., et al., 2012, The forgotten D—Challenges of addressing forest degradation in complex mosaic landscapes under REDD+: Geografisk Tidsskrift, v. 112, no. 1, p. 63-76, at http://dx.doi.org/10.1080/00167223.2012.709678.

Messinger, D.W., West, J.E., and Schott, J.R., 2006, Improving background multivariate normality and target detection performance using spatial and spectral segmentation, *in* International Geoscience and Remote Sensing Symposium, Denver, Colo., 31 July-4 August 2006, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 371-374, at http://dx.doi.org/10.1109/IGARSS.2006.100.

Meyer, K., Platnick, S., Oreopoulos, L., and Lee, D., 2013, Estimating the direct radiative effect of absorbing aerosols overlying marine boundary layer clouds in the southeast Atlantic using MODIS and CALIOP: Journal of Geophysical Research D—Atmospheres, v. 118, no. 10, p. 4801-4815, at http://dx.doi.org/10.1002/jgrd.50449.

Michael, K., Murphy, K., Lowe, D., Masuoka, E., Vollmer, B., Tilmes, C., Teague, M., Ye, G., Maiden, M., et al., 2010, Implementation of the land, atmosphere near real-time capability for EOS (LANCE), *in* International Geoscience and Remote Sensing Symposium, Honolulu, Hawaii, 25-30 July 2010, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 1442-1445, at http://dx.doi/org/10.1109/IGARSS.2010.5650534.

Michaud, J.S., Coops, N.C., Andrew, M.E., and Wulder, M.A., 2012, Characterising spatiotemporal environmental and natural variation using a dynamic habitat index throughout the province of Ontario: Ecological Indicators, v. 18, p. 303-311, at http://dx.doi.org/10.1016/j.ecolind.2011.11.027.

Michaud, J.S., Coops, N.C., Andrew, M.E., Wulder, M.A., Brown, G.S., and Rickbeil, G.J.M., 2014, Estimating moose (Alces alces) occurrence and abundance from remotely derived environmental indicators: Remote Sensing of Environment, v. 152, p. 190-201, at http://dx.doi.org/10.1016/j.rse.2014.06.005.

Mildrexler, D., Yang, Z., Cohen, W.B., and Bell, D.M., 2016, A forest vulnerability index based on drought and high temperatures: Remote Sensing of Environment, v. 173, p. 314-325, at http://dx.doi.org/10.1016/j.rse.2015.11.024.

Milesi, C., Samanta, A., Hashimoto, H., Kumar, K.K., Ganguly, S., Thenkabail, P.S., Srivastava, A.N., Nemani, R.R., and Myneni, R.B., 2010, Decadal variations in NDVI and food production in India: Remote Sensing, v. 2, no. 3, p. 758-776, at http://dx.doi.org/10.3390/rs2030758.

Mishra, N., Haque, M.O., Leigh, L., Aaron, D., Helder, D., and Markham, B., 2014, Radiometric cross calibration of Landsat 8 Operational Land Imager (OLI) and Landsat 7 Enhanced Thematic Mapper Plus (ETM+): Remote Sensing, v. 6, no. 12, p. 12619-12638, at http://dx.doi.org/10.3390/rs61212619.

Mishra, N., Helder, D., Angal, A., Choi, J., and Xiong, X., 2014, Absolute calibration of optical satellite sensors using Libya 4 pseudo invariant calibration site: Remote Sensing, v. 6, no. 2, p. 1327-1346, at http://dx.doi.org/10.3390/rs6021327.

Mishra, V., Cruise, J.F., Mecikalski, J.R., Hain, C.R., and Anderson, M.C., 2013, A remote-sensing driven tool for estimating crop stress and yields: Remote Sensing, v. 5, no. 7, p. 3331-3356, at http://dx.doi.org/10.3390/rs5073331.

Mitchell, S.W., Remmel, T.K., Csillag, F., and Wulder, M.A., 2008, Distance to second cluster as a measure of classification confidence: Remote Sensing of Environment, v. 112, no. 5, p. 2615-2626, at http://dx.doi.org/10.1016/j.rse.2007.12.006.

Moeur, M., Ohmann, J.L., Kennedy, R.E., Cohen, W.B., Gregory, M.J., Yang, Z., Roberts, H.M., Spies, T.A., and Fiorella, M., 2011, Northwest Forest Plan–the first 15 years (1994–2008)—Status and trends of late-successional and old-growth forests: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station General Technical Report PNW-GTR-853, 48 p, at http://www.fs.fed.us/pnw/pubs/pnw_gtr853.pdf.

Molinario, G., Davies, D.K., Schroeder, W., and Justice, C.O., 2014, Characterizing the spatio-temporal fire regime in Ethiopia using the MODIS-active fire product—A replicable methodology for country-level fire reporting: African Geographical Review, v. 33, no. 2, p. 99-123, at http://dx.doi.org/10.1080/19376812.2013.854708.

Möller, M., Gerstmann, H., Thurkow, D., Gao, F., and Förster, M., 2015, Coupling of phenological information and synthetically generated time-series for crop types as indicator for vegetation coverage information, *in* Analysis of Multitemporal Remote Sensing Images (Multi-Temp), International Workshop, 8th, Annecy, France, 22-24 July 2015, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), article number 7245802, at http://dx.doi.org/10.1109/Multi-Temp.2015.7245802.

Möller, M., Lymburner, L., and Volk, M., 2007, The comparison index—A tool for assessing the accuracy of image segmentation: International Journal of Applied Earth Observation and Geoinformation, v. 9, no. 3, p. 311-321, at http://dx.doi.org/10.1016/j.jag.2006.10.002.

Möller, M., Volk, M., Friedrich, K., and Lymburner, L., 2008, Placing soil-genesis and transport processes into a landscape context—A multiscale terrain-analysis approach: Journal of Plant Nutrition and Soil Science, v. 171, no. 3, p. 419-430, at http://dx.doi.org/10.1002/jpln.200625039.

Mollicone, D., Achard, F., Federici, S., Eva, H.D., Grassi, G., Belward, A., Raes, F., Seufert, G., Stibig, H.J., et al., 2007, An incentive mechanism for reducing emissions from conversion of intact and non-intact forests: Climatic Change, v. 83, no. 4, p. 477-493, at http://dx.doi.org/10.1007/s10584-006-9231-2.

Moody, E.G., King, M.D., Schaaf, C.B., Hall, D.K., and Platnick, S., 2007, Northern Hemisphere five-year average (2000-2004) spectral albedos of surfaces in the presence of snow—Statistics computed

from Terra MODIS land products: Remote Sensing of Environment, v. 111, no. 2, p. 337-345, at http://dx.doi.org/10.1016/j.rse.2007.03.026.

Mora, B., Wulder, M.A., and White, J.C., 2013, An approach using Dempster-Shafer theory to fuse spatial data and satellite image derived crown metrics for estimation of forest stand leading species: Information Fusion, v. 14, no. 4, p. 384-395, at http://dx.doi.org/10.1016/j.inffus.2012.05.004.

Mora, B., Wulder, M.A., and White, J.C., 2010, Identifying leading species using tree crown metrics derived from very high spatial resolution imagery in a boreal forest environment: Canadian Journal of Remote Sensing, v. 36, no. 4, p. 332-344, at http://dx.doi.org/10.5589/m10-052.

Mora, B., Wulder, M.A., and White, J.C., 2010, Segment-constrained regression tree estimation of forest stand height from very high spatial resolution panchromatic imagery over a boreal environment: Remote Sensing of Environment, v. 114, no. 11, p. 2474-2484, at http://dx.doi.org/10.1016/j.rse.2010.05.022.

Mora, B., Wulder, M.A., White, J.C., and Hobart, G., 2013, Modeling stand height, volume, and biomass from very high spatial resolution satellite imagery and samples of airborne LIDAR: Remote Sensing, v. 5, no. 5, p. 2308-2326, at http://dx.doi.org/10.3390/rs5052308.

Morales Betancourt, R., Lee, D., Oreopoulos, L., Sud, Y.C., Barahona, D., and Nenes, A., 2012, Sensitivity of cirrus and mixed-phase clouds to the ice nuclei spectra in McRAS-AC—Single column model simulations: Atmospheric Chemistry and Physics, v. 12, no. 22, p. 10679-10692, at http://dx.doi.org/10.5194/acp-12-10679-2012.

Morisette, J.T., Baret, F., Privette, J.L., Myneni, R.B., Nickeson, J.E., Garrigues, S., Shabanov, N.V., Weiss, M., Fernandes, R.A., et al., 2006, Validation of global moderate-resolution LAI products—A framework proposed within the CEOS land product validation subgroup: IEEE Transactions on Geoscience and Remote Sensing, v. 44, no. 7, p. 1804-1814, at http://dx.doi.org/10.1109/TGRS.2006.872529.

Morstad, D.L., and Helder, D.L., 2008, Use of pseudo-invariant sites for long-term sensor calibration, *in* International Geoscience and Remote Sensing Symposium, Boston, Mass., 7-11 July 2008, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. I253-I256, at http://dx.doi.org/10.1109/IGARSS.2008.4778841.

Morton, D.C., Nagol, J., Carabajal, C.C., Rosette, J., Palace, M., Cook, B.D., Vermote, E.F., Harding, D.J., and North, P.R., 2016, Morton et al. reply: Nature, v. 531, no. 7594, p. E6, at http://dx.doi.org/10.1038/nature16458.

Morton, D.C., Nagol, J., Carabajal, C.C., Rosette, J., Palace, M., Cook, B.D., Vermote, E.F., Harding, D.J., and North, P.R.J., 2014, Amazon forests maintain consistent canopy structure and greenness during the dry season: Nature, v. 506, no. 7487, p. 221-224, at http://dx.doi.org/10.1038/nature13006.

Moussavi, M.S., Abdalati, W., Pope, A., Scambos, T., Tedesco, M., MacFerrin, M., and Grigsby, S., 2016, Derivation and validation of supraglacial lake volumes on the Greenland Ice Sheet from high-resolution satellite imagery: Remote Sensing of Environment, v. 183, p. 294-303, at http://dx.doi.org/10.1016/j.rse.2016.05.024.

Moussavi, M.S., Abdalati, W., Scambos, T., and Neuenschwander, A., 2014, Applicability of an automatic surface detection approach to micro-pulse photon-counting lidar altimetry data—Implications for canopy height retrieval from future ICESat-2 data: International Journal of Remote Sensing, v. 35, no. 13, p. 5263-5279, at http://dx.doi.org/10.1080/01431161.2014.939780.

Mueller, N., Lewis, A., Roberts, D., Ring, S., Melrose, R., Sixsmith, J., Lymburner, L., McIntyre, A., Tan, P., et al., 2016, Water observations from space—Mapping surface water from 25years of Landsat imagery across Australia: Remote Sensing of Environment, v. 174, p. 341-352, at http://dx.doi.org/10.1016/j.rse.2015.11.003.

Müller, H., Rufin, P., Griffiths, P., Barros Siqueira, A.J., and Hostert, P., 2015, Mining dense Landsat time series for separating cropland and pasture in a heterogeneous Brazilian savanna landscape: Remote Sensing of Environment, v. 156, p. 490-499, at http://dx.doi.org/10.1016/j.rse.2014.10.014.

Muñoz-Perea, C.G., Allen, R.G., Westermann, D.T., Wright, J.L., and Singh, S.P., 2007, Water use efficiency among dry bean landraces and cultivars in drought-stressed and non-stressed environments: Euphytica, v. 155, no. 3, p. 393-402, at http://dx.doi.org/10.1007/s10681-006-9340-z.

Muñoz-Perea, C.G., Terán, H., Allen, R.G., Wright, J.L., Westermann, D.T., and Singh, S.P., 2006, Selection for drought resistance in dry bean landraces and cultivars: Crop Science, v. 46, no. 5, p. 2111-2120, at http://dx.doi.org/10.2135/cropsci2006.01.0029.

Musy, R.F., Wynne, R.H., Binn, C.E., Scrivani, J.A., and McRoberts, R.E., 2006, Automated forest area estimation using iterative guided spectral class rejection: Photogrammetric Engineering and Remote Sensing, v. 72, no. 8, p. 949-960, at http://dx.doi.org/10.14358/PERS.72.8.949.

Muto, A., Scambos, T.A., Steffen, K., Slater, A.G., and Clow, G.D., 2011, Recent surface temperature trends in the interior of East Antarctica from borehole firn temperature measurements and geophysical inverse methods: Geophysical Research Letters, v. 38, no. 15, citation number L15502, at http://dx.doi.org/10.1029/2011GL048086.

Myneni, R.B., Yang, W., Nemani, R.R., Huete, A.R., Dickinson, R.E., Knyazikhin, Y., Didan, K., Fu, R., Negrón Juárez, R.I., et al., 2007, Large seasonal swings in leaf area of Amazon rainforests: Proceedings of the National Academy of Sciences of the United States of America, v. 104, no. 12, p. 4820-4823, at http://dx.doi.org/10.1073/pnas.0611338104.

Nagol, J.R., Sexton, J.O., Kim, D.H., Anand, A., Morton, D., Vermote, E., and Townshend, J.R., 2015, Bidirectional effects in Landsat reflectance estimates—Is there a problem to solve?: ISPRS Journal of Photogrammetry and Remote Sensing, v. 103, p. 129-135, at http://dx.doi.org/10.1016/j.isprsjprs.2014.09.006.

Nagol, J.R., Vermote, E.F., and Prince, S.D., 2009, Effects of atmospheric variation on AVHRR NDVI data: Remote Sensing of Environment, v. 113, no. 2, p. 392-397, at http://dx.doi.org/10.1016/j.rse.2008.10.007.

Nair, S., Srinivasan, G., and Nemani, R., 2009, Evaluation of multi-satellite TRMM derived rainfall estimates over a western state of India: Journal of the Meteorological Society of Japan, v. 87, no. 6, p. 927-939, at http://dx.doi.org/10.2151/jmsj.87.927.

Neigh, C.S.R., Masek, J.G., Bourget, P., Cook, B., Huang, C., Rishmawi, K., and Zhao, F., 2014, Deciphering the precision of stereo IKONOS canopy height models for US forests with G-LiHT airborne LiDAR: Remote Sensing, v. 6, no. 3, p. 1762-1782, at http://dx.doi.org/10.3390/rs6031762.

Neigh, C.S.R., McCorkel, J., and Middleton, E.M., 2015, Quantifying Libya-4 surface reflectance heterogeneity with WorldView-1, 2 and EO-1 Hyperion: IEEE Geoscience and Remote Sensing Letters, v. 12, no. 11, p. 2277-2281, at http://dx.doi.org/10.1109/LGRS.2015.2468174.

Neigh, C.S.R., Nelson, R.F., Ranson, K.J., Margolis, H.A., Montesano, P.M., Sun, G., Kharuk, V., Næsset, E., Wulder, M.A., et al., 2013, Taking stock of circumboreal forest carbon with ground

measurements, airborne and spaceborne LiDAR: Remote Sensing of Environment, v. 137, p. 274-287, at http://dx.doi.org/10.1016/j.rse.2013.06.019.

Nelson, M.D., Healey, S.P., Moser, W.K., Masek, J.G., and Cohen, W.B., 2011, Consistency of forest presence and biomass predictions modeled across overlapping spatial and temporal extents: Mathematical and Computational Forestry and Natural-Resource Sciences, v. 3, no. 2, p. 102-113, at http://mcfns.com/index.php/Journal/article/view/MCFNS.3-102.

Nelson, T., Boots, B., and Wulder, M.A., 2006, Large-area mountain pine beetle infestations—Spatial data representation and accuracy: Forestry Chronicle, v. 82, no. 2, p. 243-252, at http://dx.doi.org/10.5558/tfc82243-2.

Nelson, T., Boots, B., Wulder, M.A., Shore, T., Safranyik, L., and Ebata, T., 2006, Rating the susceptibility of forests to mountain pine beetle infestations—The impact of data: Canadian Journal of Forest Research, v. 36, no. 11, p. 2815-2825, at http://dx.doi.org/10.1139/X06-163.

Nelson, T.A., Coops, N.C., Wulder, M.A., Perez, L., Fitterer, J., Powers, R., and Fontana, F., 2014, Predicting climate change impacts to the Canadian boreal forest: Diversity, v. 6, no. 1, p. 133-157, at http://dx.doi.org/10.3390/d6010133.

Nemani, R., Hashimoto, H., Votava, P., Melton, F., Wang, W., Michaelis, A., Mutch, L., Milesi, C., Hiatt, S., et al., 2009, Monitoring and forecasting ecosystem dynamics using the Terrestrial Observation and Prediction System (TOPS): Remote Sensing of Environment, v. 113, no. 7, p. 1497-1509, at http://dx.doi.org/10.1016/j.rse.2008.06.017.

Nemani, R., Votava, P., Michaelis, A., Melton, F., and Milesi, C., 2011, Collaborative supercomputing for global change science: Eos, v. 92, no. 13, p. 109-110, at http://dx.doi.org/10.1029/2011EO130001.

Nickeson, J.E., Morisette, J.T., Privette, J.L., Justice, C.O., and Wickland, D.E., 2007, Coordinating earth observing system land validation: Eos, v. 88, no. 7, p. 81-82, at http://dx.doi.org/10.1029/2007EO070002.

Nield, G.A., Barletta, V.R., Bordoni, A., King, M.A., Whitehouse, P.L., Clarke, P.J., Domack, E., Scambos, T.A., and Berthier, E., 2014, Rapid bedrock uplift in the Antarctic Peninsula explained by viscoelastic response to recent ice unloading: Earth and Planetary Science Letters, v. 397, p. 32-41, at http://dx.doi.org/10.1016/j.epsl.2014.04.019.

Nightingale, J., Nickeson, J., Justice, C., Baret, F., Garrigues, S., Wolfe, R., and Masuoka, E., 2009, Global validation of EOS land products, lessons learned and future challenges—A MODIS case study, *in* Sustaining the millennium development goals, International Symposium on Remote Sensing of Environment, 33rd, Stresa, Italy, 4-8 May 2009, Proceedings: Tucson, Ariz., International Center for Remote Sensing of Environment, p. 1195-1198, at http://landval.gsfc.nasa.gov/pdf/ISRSE_Nightingale.pdf.

Nijland, W., Coops, N.C., Coogan, S.C.P., Bater, C.W., Wulder, M.A., Nielsen, S.E., McDermid, G., and Stenhouse, G.B., 2013, Vegetation phenology can be captured with digital repeat photography and linked to variability of root nutrition in Hedysarum alpinum: Applied Vegetation Science, v. 16, no. 2, p. 317-324, at http://dx.doi.org/10.1111/avsc.12000.

Nijland, W., de Jong, R., de Jong, S.M., Wulder, M.A., Bater, C.W., and Coops, N.C., 2014, Monitoring plant condition and phenology using infrared sensitive consumer grade digital cameras: Agricultural and Forest Meteorology, v. 184, p. 98-106, at http://dx.doi.org/10.1016/j.agrformet.2013.09.007.

Nijland, W., Nielsen, S.E., Coops, N.C., Wulder, M.A., and Stenhouse, G.B., 2014, Fine-spatial scale predictions of understory species using climate-and LiDAR-derived terrain and canopy metrics: Journal of Applied Remote Sensing, v. 8, no. 1, article number 083572, at http://dx.doi.org/10.1117/1.JRS.8.083572.

Ni-Meister, W., Strahler, A.H., Woodcock, C.E., Schaaf, C.B., Jupp, D.L.B., Yao, T., Zhao, F., and Yang, X., 2008, Modeling the hemispherical scanning, below-canopy lidar and vegetation structure characteristics with a geometric-optical and radiative-transfer model: Canadian Journal of Remote Sensing, v. 34, no. Suppl. 2, p. S385-S397, at http://dx.doi.org/10.5589/m08-047.

Niu, Z., Zhang, H., Wang, X., Yao, W., Zhou, D., Zhao, K., Zhao, H., Li, N., Huang, H., et al., 2012, Mapping wetland changes in China between 1978 and 2008: Chinese Science Bulletin, v. 57, no. 22, p. 2813-2823, at http://dx.doi.org/10.1007/s11434-012-5093-3.

Norman, J.M., Anderson, M.C., and Kustas, W.P., 2006, Are single-source, remote-sensing surface-flux models too simple?, *in* D'Urso, G., Jochum, M.A.O., and Moreno, J., eds., Earth observation for vegetation monitoring and water management, Naples, Italy, 10-11 November 2005, Proceedings: Melville, N.Y., American Institute of Physics, p. 170-177, at http://dx.doi.org/10.1063/1.2349341.

Norris, P.M., Oreopoulos, L., Hou, A.Y., Tao, W.K., and Zeng, X., 2008, Representation of 3D heterogeneous cloud fields using copulas—Theory for water clouds: Quarterly Journal of the Royal Meteorological Society, v. 134, no. 636, p. 1843-1864, at http://dx.doi.org/10.1002/qj.321.

Nowicki, S., Bindschadler, R.A., Abe-Ouchi, A., Aschwanden, A., Bueler, E., Choi, H., Fastook, J., Granzow, G., Greve, R., et al., 2013, Insights into spatial sensitivities of ice mass response to environmental change from the SeaRISE ice sheet modeling project I—Antarctica: Journal of Geophysical Research F—Earth Surface, v. 118, no. 2, p. 1002-1024, at http://dx.doi.org/10.1002/jgrf.20081.

Nowicki, S., Bindschadler, R.A., Abe-Ouchi, A., Aschwanden, A., Bueler, E., Choi, H., Fastook, J., Granzow, G., Greve, R., et al., 2013, Insights into spatial sensitivities of ice mass response to environmental change from the SeaRISE ice sheet modeling project II—Greenland: Journal of Geophysical Research F—Earth Surface, v. 118, no. 2, p. 1025-1044, at http://dx.doi.org/10.1002/jgrf.20076.

Ochs, W., Johns, A., Seaton, B., Adams, C., Wasiak, F., Fatig, C., Jackson, W., and Jones, R., 2012, Maintaining James Webb Space Telescope integration and test systems for long development cycles, *in* Schmidhuber, M., Cruzen, C.A., and Joachim, K., eds., Space operations—Experience, mission systems, and advanced concepts, International Conference on Space Operations, 12th, Stockholm, Sweden, 11-15 June 2012, Proceedings: Reston, Va., American Institute of Aeronautics and Astronautics, p. 1-8, at http://dx.doi.org/10.2514/6.2012-1238302.

O'Connell, J., Connolly, J., Vermote, E.F., and Holden, N.M., 2013, Radiometric normalization for change detection in peatlands—A modified temporal invariant cluster approach: International Journal of Remote Sensing, v. 34, no. 8, p. 2905-2924, at http://dx.doi.org/10.1080/01431161.2012.752886.

O'Halloran, T.L., Law, B.E., Goulden, M.L., Wang, Z., Barr, J.G., Schaaf, C., Brown, M., Fuentes, J.D., Göckede, M., et al., 2012, Radiative forcing of natural forest disturbances: Global Change Biology, v. 18, no. 2, p. 555-565, at http://dx.doi.org/10.1111/j.1365-2486.2011.02577.x.

Ohmann, J.L., Gregory, M.J., Roberts, H.M., Cohen, W.B., Kennedy, R.E., and Yang, Z., 2012, Mapping change of older forest with nearest-neighbor imputation and Landsat time-series: Forest Ecology and Management, v. 272, p. 13-25, at http://dx.doi.org/10.1016/j.foreco.2011.09.021.

Ohnesorge, B., Plieninger, T., and Hostert, P., 2013, Management effectiveness and land cover change in dynamic cultural landscapes-assessing a central european biosphere reserve: Ecology and Society, v. 18, no. 4, article number 23, at http://dx.doi.org/10.5751/ES-05888-180423.

Okujeni, A., van der Linden, S., and Hostert, P., 2015, Extending the vegetation-impervious-soil model using simulated EnMAP data and machine learning: Remote Sensing of Environment, v. 158, p. 69-80, at http://dx.doi.org/10.1016/j.rse.2014.11.009.

Okujeni, A., van der Linden, S., Jakimow, B., Rabe, A., Verrelst, J., and Hostert, P., 2014, A comparison of advanced regression algorithms for quantifying urban land cover: Remote Sensing, v. 6, no. 7, p. 6324-6346, at http://dx.doi.org/10.3390/rs6076324.

Okujeni, A., van der Linden, S., Tits, L., Somers, B., and Hostert, P., 2013, Support vector regression and synthetically mixed training data for quantifying urban land cover: Remote Sensing of Environment, v. 137, p. 184-197, at http://dx.doi.org/10.1016/j.rse.2013.06.007.

Oliphant, A.J., Li, J., Wynne, R.H., Donovan, P.F., and Zipper, C.E., 2014, Identifying woody vegetation on coal surface mines using phenological indicators with multitemporal Landsat imagery, *in* Toth, C., Holm, T., and Jutzi, B., eds., ISPRS Technical Commission I Symposium, Denver, Colo., 17-20 November 2014, The International Archives of Photogrammetry and Remote Sensing, XL-1: Bethesda, Md., International Society for Photogrammetry and Remote Sensing, p. 339-345, at http://dx.doi.org/10.5194/isprsarchives-XL-1-339-2014.

Olofsson, P., Foody, G.M., Herold, M., Stehman, S.V., Woodcock, C.E., and Wulder, M.A., 2014, Good practices for estimating area and assessing accuracy of land change: Remote Sensing of Environment, v. 148, p. 42-57, at http://dx.doi.org/10.1016/j.rse.2014.02.015.

Olofsson, P., Foody, G.M., Stehman, S.V., and Woodcock, C.E., 2013, Making better use of accuracy data in land change studies—Estimating accuracy and area and quantifying uncertainty using stratified estimation: Remote Sensing of Environment, v. 129, p. 122-131, at http://dx.doi.org/10.1016/j.rse.2012.10.031.

Olofsson, P., Kuemmerle, T., Griffiths, P., Knorn, J., Baccini, A., Gancz, V., Blujdea, V., Houghton, R.A., Abrudan, I.V., et al., 2011, Carbon implications of forest restitution in post-socialist Romania: Environmental Research Letters, v. 6, no. 4, article number 045202, at http://dx.doi.org/10.1088/1748-9326/6/4/045202.

Olofsson, P., Stehman, S.V., Woodcock, C.E., Sulla-Menashe, D., Sibley, A.M., Newell, J.D., Friedl, M.A., and Herold, M., 2012, A global land-cover validation data set, part I—Fundamental design principles: International Journal of Remote Sensing, v. 33, no. 18, p. 5768-5788, at http://dx.doi.org/10.1080/01431161.2012.674230.

Olofsson, P., Torchinava, P., Woodcock, C.E., Baccini, A., Houghton, R.A., Ozdogan, M., Zhao, F., and Yang, X., 2010, Implications of land use change on the national terrestrial carbon budget of Georgia: Carbon Balance and Management, v. 5, no. 4, p. 1-13, at http://dx.doi.org/10.1186/1750-0680-5-4.

Oreopoulos, L., Cahalan, R.F., and Platnick, S., 2007, The plane-parallel albedo bias of liquid clouds from MODIS observations: Journal of Climate, v. 20, no. 20, p. 5114-5125, at http://dx.doi.org/10.1175/JCLI4305.1.

Oreopoulos, L., Lee, D., Sud, Y.C., and Suarez, M.J., 2012, Radiative impacts of cloud heterogeneity and overlap in an atmospheric General Circulation Model: Atmospheric Chemistry and Physics, v. 12, no. 19, p. 9097-9111, at http://dx.doi.org/10.5194/acp-12-9097-2012.

Oreopoulos, L., Marshak, A., Cahalan, R.F., Várnai, T., Davis, A.B., and Macke, A., 2006, New directions in the radiative transfer of cloudy atmospheres: Eos, v. 87, no. 5, p. 57-58, at http://dx.doi.org/10.1029/2006EO050006.

Oreopoulos, L., and Mlawer, E., 2010, The continual intercomparison of radiation codes (CIRC): Bulletin of the American Meteorological Society, v. 91, no. 3, p. 305-310, at http://dx.doi.org/10.1175/2009BAMS2732.1.

Oreopoulos, L., Mlawer, E., Delamere, J., and Shippert, T., 2009, The Continual Intercomparison of Radiation Codes (CIRC)—A new standard for evaluating GCM radiation codes, *in* Nakajima, T., and Yamasoe, M.A., eds., Current problems in atmospheric radiation, International Radiation Symposium, Foz do Iguacu, Brazil, 3-8 August 2008, Proceedings: Melville, N.Y., American Institute of Physics, p. 73-76, at http://dx.doi.org/10.1063/1.3117076.

Oreopoulos, L., Mlawer, E., Delamere, J., Shippert, T., Cole, J., Fomin, B., Iacono, M., Jin, Z., Li, J., et al., 2012, The continual intercomparison of radiation codes—Results from Phase I: Journal of Geophysical Research D—Atmospheres, v. 117, no. 6, citation number D06118, at http://dx.doi.org/10.1029/2011JD016821.

Oreopoulos, L., and Norris, P.M., 2011, An analysis of cloud overlap at a midlatitude atmospheric observation facility: Atmospheric Chemistry and Physics, v. 11, no. 12, p. 5557-5567, at http://dx.doi.org/10.5194/acp-11-5557-2011.

Oreopoulos, L., and Platnick, S., 2008, Radiative susceptibility of cloudy atmospheres to droplet number perturbations—2. Global analysis from MODIS: Journal of Geophysical Research D—Atmospheres, v. 113, no. 14, citation number D14S21, at http://dx.doi.org/10.1029/2007JD009655.

Oreopoulos, L., Platnick, S., Hong, G., Yang, P., and Cahalan, R.F., 2009, The shortwave radiative forcing bias of liquid and ice clouds from MODIS observations: Atmospheric Chemistry and Physics, v. 9, no. 16, p. 5865-5875, at http://dx.doi.org/10.5194/acp-9-5865-2009.

Oreopoulos, L., Platnick, S.E., Hong, G., Yang, P., and Cahalanb, R.F., 2009, The shortwave radiative forcing bias of homogeneous liquid and ice clouds observed by MODIS, *in* Nakajima, T., and Yamasoe, M.A., eds., Current problems in atmospheric radiation, International Radiation Symposium, Foz do Iguacu, Brazil, 3-8 August 2008, Proceedings: Melville, N.Y., American Institute of Physics, p. 569-572, at http://dx.doi/org/10.1063/1.3117049.

Oreopoulos, L., and Rossow, W.B., 2011, The cloud radiative effects of International Satellite Cloud Climatology Project weather states: Journal of Geophysical Research D—Atmospheres, v. 116, no. 12, citation number D12202, at http://dx.doi.org/10.1029/2010JD015472.

Oreopoulos, L., Wilson, M.J., and Várnai, T., 2011, Implementation on Landsat data of a simple cloud-mask algorithm developed for MODIS land bands: IEEE Geoscience and Remote Sensing Letters, v. 8, no. 4, p. 597-601, at http://dx.doi.org/10.1109/LGRS.2010.2095409.

Ørka, H.O., Wulder, M.A., Gobakken, T., and Næsset, E., 2012, Subalpine zone delineation using LiDAR and Landsat imagery: Remote Sensing of Environment, v. 119, p. 11-20, at http://dx.doi.org/10.1016/j.rse.2011.11.023.

Ota, T., Ahmed, O.S., Franklin, S.E., Wulder, M.A., Kajisa, T., Mizoue, N., Yoshida, S., Takao, G., Hirata, Y., et al., 2014, Estimation of airborne lidar-derived tropical forest canopy height using Landsat time series in Cambodia: Remote Sensing, v. 6, no. 11, p. 10750-10772, at http://dx.doi.org/10.3390/rs61110750.

Otkin, J.A., Anderson, M.C., Hain, C., Mladenova, I.E., Basara, J.B., and Svoboda, M., 2013, Examining rapid onset drought development using the thermal infrared-based evaporative stress index: Journal of Hydrometeorology, v. 14, no. 4, p. 1057-1074, at http://dx.doi.org/10.1175/JHM-D-12-0144.1.

Otkin, J.A., Anderson, M.C., Hain, C., and Svoboda, M., 2014, Examining the relationship between drought development and rapid changes in the evaporative stress index: Journal of Hydrometeorology, v. 15, no. 3, p. 938-956, at http://dx.doi.org/10.1175/JHM-D-13-0110.1.

Otkin, J.A., Anderson, M.C., Hain, C., and Svoboda, M., 2015, Using temporal changes in drought indices to generate probabilistic drought intensification forecasts: Journal of Hydrometeorology, v. 16, no. 1, p. 88-105, at http://dx.doi.org/10.1175/JHM-D-14-0064.1.

Otkin, J.A., Shafer, M., Svoboda, M., Wardlow, B., Anderson, M.C., Hain, C., and Basara, J., 2015, Facilitating the use of drought early warning information through interactions with agricultural stakeholders: Bulletin of the American Meteorological Society, v. 96, no. 7, p. 1073-1078, at http://dx.doi.org/10.1175/BAMS-D-14-00219.1.

Ou, G., Chen, X., Kilic, A., Bartelt-Hunt, S., Li, Y., and Samal, A., 2013, Development of a cross-section based streamflow routing package for MODFLOW: Environmental Modelling and Software, v. 50, p. 132-143, at http://dx.doi.org/10.1016/j.envsoft.2013.09.012.

Ozdogan, M., and Woodcock, C.E., 2006, Resolution dependent errors in remote sensing of cultivated areas: Remote Sensing of Environment, v. 103, no. 2, p. 203-217, at http://dx.doi.org/10.1016/j.rse.2006.04.004.

Ozdogan, M., Woodcock, C.E., Salvucci, G.D., and Demir, H., 2006, Changes in summer irrigated crop area and water use in Southeastern Turkey from 1993 to 2002—Implications for current and future water resources: Water Resources Management, v. 20, no. 3, p. 467-488, at http://dx.doi.org/10.1007/s11269-006-3087-0.

Özen, H., Fox, N., Gürbüz, S.Z., Deadman, A., Behnert, I., Harris, P., Yua, L., Griffith, D., Kaewmanee, M., et al., 2012, Preliminary results of the comparison of satellite imagers using Tuz Gölü as a reference standard, *in* Shortis, M., and El-Sheimy, N., eds., XXII ISPRS Congress, Technical Commission I, Melbourne, Australia, 25 August - 1 September 2012, The International Archives of Photogrammetry and Remote Sensing, XXXIX-B1: Bethesda, Md., International Society for Photogrammetry and Remote Sensing, p. 145-148, at http://dx.doi.org/10.5194/isprsarchives-XXXIX-B1-145-2012.

Padman, L., Costa, D.P., Dinniman, M.S., Fricker, H.A., Goebel, M.E., Huckstadt, L.A., Humbert, A., Joughin, I., Lenaerts, J.T.M., et al., 2012, Oceanic controls on the mass balance of Wilkins Ice Shelf, Antarctica: Journal of Geophysical Research C—Oceans, v. 117, no. 1, citation number C01010, at http://dx.doi.org/10.1029/2011JC007301.

Padula, F.P., and Schott, J.R., 2010, Historic calibration of the thermal infrared band of Landsat-5 TM: Photogrammetric Engineering and Remote Sensing, v. 76, no. 11, p. 1225-1238, at http://dx.doi.org/10.14358/PERS.76.11.1225.

Padula, F.P., Schott, J.R., Barsi, J.A., Raqueno, N.G., and Hook, S.J., 2010, Calibration of Landsat 5 thermal infrared channel—Updated calibration history and assessment of the errors associated with the methodology: Canadian Journal of Remote Sensing, v. 36, no. 5, p. 617-630, at http://dx.doi.org/10.5589/m10-084.

Padula, F.P., Schott, J.R., and Raqueño, N.G., 2008, New methodology for an improved thermal calibration of Landsat 5 through fusion of environmental data sources, *in* International Geoscience and Remote Sensing Symposium, Boston, Mass., 7-11 July 2008, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. IV1340-IV1343, at http://dx.doi.org/10.1109/IGARSS.2008.4779979.

Pagnutti, M., Blonski, S., Cramer, M., Helder, D., Holekamp, K., Honkavaara, E., and Ryan, R., 2010, Targets, methods, and sites for assessing the in-flight spatial resolution of electro-optical data products: Canadian Journal of Remote Sensing, v. 36, no. 5, p. 583-601, at http://dx.doi.org/10.5589/m10-078.

Pahlevan, N., Garrett, A.J., Gerace, A.D., and Schott, J.R., 2012, Integrating Landsat-7 imagery with physics-based models for quantitative mapping of coastal waters near river discharges: Photogrammetric Engineering and Remote Sensing, v. 78, no. 11, p. 1163-1174, at http://dx.doi.org/10.14358/PERS.78.11.1163.

Pahlevan, N., Lee, Z., Hu, C., and Schott, J.R., 2014, Diurnal remote sensing of coastal/oceanic waters—A radiometric analysis for geostationary coastal and air pollution events: Applied Optics, v. 53, no. 4, p. 648-665, at http://dx.doi.org/10.1364/AO.53.000648.

Pahlevan, N., and Schott, J.R., 2012, Characterizing the relative calibration of Landsat-7 (ETM+) visible bands with Terra (MODIS) over clear waters—The implications for monitoring water resources: Remote Sensing of Environment, v. 125, p. 167-180, at http://dx.doi.org/10.1016/j.rse.2012.07.013.

Pahlevan, N., and Schott, J.R., 2013, Leveraging EO-1 to evaluate capability of new generation of Landsat sensors for coastal/inland water studies: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 6, no. 2, p. 360-374, at http://dx.doi.org/10.1109/JSTARS.2012.2235174.

Pahlevan, N., Sheldon, P., Peri, F., Wei, J., Shang, Z., Sun, Q., Chen, R.F., Lee, Z., Schaaf, C.B., et al., 2016, Calibration/validation of Landsat-derived ocean colour products in Boston harbour, *in* Halounova, L., Šafář, V., Jiang, J., Olešovská, H., Dvořáček, P., Holland, D., Seredovich, V.A., Muller, J.-P., Pattabhi Rama Rao, E.P.R., Veenendaal, B., Mu, L., Zlatanova, S., Oberst, J., Yang, C.P., Ban, Y., Stylianidis, S., Voženílek, V., Vondráková, A., Gartner, G., Remondino, F., Doytsher, Y., Percivall, G., Schreier, G., Dowman, I., Streilein, A., and Ernst, J., eds., XXIII ISPRS Congress, Commission VIII, Prague, Czech Republic, 12-19 July 2016, ISPRS Archives, XLI-B8: Lemmer, Netherlands, International Society for Photogrammetry and Remote Sensing, p. 1165-1168, at http://dx.doi.org/10.5194/isprsarchives-XLI-B8-1165-2016.

Pahlevan, N., Wei, J., Schaaf, C.B., and Schott, J.R., 2014, Evaluating radiometric sensitivity of Landsat 8 over coastal/inland waters, *in* Energy and our changing planet, International Geoscience and Remote Sensing Symposium (IGARSS), Quebec City, Canada, 13-18 July 2014, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 1393-1396, at http://dx.doi.org/10.1109/IGARSS.2014.6946695.

Pantaleoni, E., Wynne, R.H., Galbraith, J.M., and Campbell, J.B., 2009, A logit model for predicting wetland location using ASTER and GIS: International Journal of Remote Sensing, v. 30, no. 9, p. 2215-2236, at http://dx.doi.org/10.1080/01431160802549310.

Pantaleoni, E., Wynne, R.H., Galbraith, J.M., and Campbell, J.B., 2009, Mapping wetlands using ASTER data—A comparison between classification trees and logistic regression: International Journal of Remote Sensing, v. 30, no. 13, p. 3423-3440, at http://dx.doi.org/10.1080/01431160802562214.

Parinussa, R.M., Yilmaz, M.T., Anderson, M.C., Hain, C.R., and De Jeu, R.A.M., 2013, An intercomparison of remotely sensed soil moisture products at various spatial scales over the Iberian Peninsula: Hydrological Processes, v. 28, no. 18, p. 4865–4876, at http://dx.doi.org/10.1002/hyp.9975.

Parizek, B.R., Christianson, K., Anandakrishnan, S., Alley, R.B., Walker, R.T., Edwards, R.A., Wolfe, D.S., Bertini, G.T., Rinehart, S.K., et al., 2013, Dynamic (in)stability of Thwaites Glacier, West Antarctica: Journal of Geophysical Research F—Earth Surface, v. 118, no. 2, p. 638-655, at http://dx.doi.org/10.1002/jgrf.20044.

Park, T., Kennedy, R.E., Choi, S., Wu, J., Lefsky, M.A., Bi, J., Mantooth, J.A., Myneni, R.B., and Knyazikhin, Y., 2014, Application of physically-based slope correction for maximum forest canopy height estimation using waveform lidar across different footprint sizes and locations—Tests on LVIS and GLAS: Remote Sensing, v. 6, no. 7, p. 6566-6586, at http://dx.doi.org/10.3390/rs6076566.

Pascual, C., García-Abril, A., Cohen, W.B., and Martín-Fernández, S., 2010, Relationship between LiDAR-derived forest canopy height and Landsat images: International Journal of Remote Sensing, v. 31, no. 5, p. 1261-1280, at http://dx.doi.org/10.1080/01431160903380656.

Pascual, C., García-Abril, A., García-Montero, L.G., Martín-Fernández, S., and Cohen, W.B., 2008, Object-based semi-automatic approach for forest structure characterization using lidar data in heterogeneous Pinus sylvestris stands: Forest Ecology and Management, v. 255, no. 11, p. 3677-3685, at http://dx.doi.org/10.1016/j.foreco.2008.02.055.

Peddle, D.R., Huemmrich, K.F., Hall, F.G., Masek, J.G., Soenen, S.A., and Jackson, C.D., 2011, Applications of the BIOPHYS algorithm for physically-based retrieval of biophysical, structural and forest disturbance information: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 4, no. 4, p. 971-982, at http://dx.doi.org/10.1109/JSTARS.2011.2164899.

Pedelty, J., Devadiga, S., Masuoka, E., Brown, M., Pinzon, J., Tucker, C., Vermote, E., Prince, S., Nagol, J., et al., 2007, Generating a long-term land data record from the AVHRR and MODIS instruments, *in* International Geoscience and Remote Sensing Symposium, Barcelona, Spain, 23-28 July 2007, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 1021-1024, at http://dx.doi.org/10.1109/IGARSS.2007.4422974.

Peduzzi, A., Allen, H.L., and Wynne, R.H., 2010, Leaf area of overstory and understory in pine plantations in the flatwoods: Southern Journal of Applied Forestry, v. 34, no. 4, p. 154-160, at http://www.ingentaconnect.com/content/saf/sjaf/2010/00000034/00000004/art00002.

Peduzzi, A., Wynne, R.H., Fox, T.R., Nelson, R.F., and Thomas, V.A., 2012, Estimating leaf area index in intensively managed pine plantations using airborne laser scanner data: Forest Ecology and Management, v. 270, p. 54-65, at http://dx.doi.org/10.1016/j.foreco.2011.12.048.

Peduzzi, A., Wynne, R.H., Thomas, V.A., Nelson, R.F., Reis, J.J., and Sanford, M., 2012, Combined use of airborne lidar and DBInSAR data to estimate LAI in temperate mixed forests: Remote Sensing, v. 4, no. 6, p. 1758-1780, at http://dx.doi.org/10.3390/rs4061758.

Pelletier, D., Clark, M., Anderson, M.G., Rayfield, B., Wulder, M.A., and Cardille, J.A., 2014, Applying circuit theory for corridor expansion and management at regional scales—tiling, pinch points, and omnidirectional connectivity: PLoS ONE, v. 9, no. 1, article number e84135, at http://dx.doi.org/10.1371/journal.pone.0084135.

Pengra, B., Long, J., Dahal, D., Stehman, S.V., and Loveland, T.R., 2015, A global reference database from very high resolution commercial satellite data and methodology for application to Landsat derived 30m continuous field tree cover data: Remote Sensing of Environment, v. 165, p. 234-248, at http://dx.doi.org/10.1016/j.rse.2015.01.018.

Pengra, B.W., Johnston, C.A., and Loveland, T.R., 2007, Mapping an invasive plant, Phragmites australis, in coastal wetlands using the EO-1 Hyperion hyperspectral sensor: Remote Sensing of Environment, v. 108, no. 1, p. 74-81, at http://dx.doi.org/10.1016/j.rse.2006.11.002.

Perry, C., Steduto, P., Allen, R.G., and Burt, C.M., 2009, Increasing productivity in irrigated agriculture—Agronomic constraints and hydrological realities: Agricultural Water Management, v. 96, no. 11, p. 1517-1524, at http://dx.doi.org/10.1016/j.agwat.2009.05.005.

Pesta, F., Bhatta, S., Helder, D., and Mishra, N., 2015, Radiometric non-uniformity characterization and correction of Landsat 8 OLI using Earth imagery-based techniques: Remote Sensing, v. 7, no. 1, p. 430-446, at http://dx.doi.org/10.3390/rs70100430.

Pflugmacher, D., Cohen, W., Kennedy, R., and Lefsky, M., 2008, Regional applicability of forest height and aboveground biomass models for the Geoscience Laser Altimeter System: Forest Science, v. 54, no. 6, p. 647-657, at http://www.ingentaconnect.com/content/saf/fs/2008/00000054/00000006/art00009.

Pflugmacher, D., Cohen, W.B., and Kennedy, R.E., 2012, Using Landsat-derived disturbance history (1972-2010) to predict current forest structure: Remote Sensing of Environment, v. 122, p. 146-165, at http://dx.doi.org/10.1016/j.rse.2011.09.025.

Pflugmacher, D., Cohen, W.B., Kennedy, R.E., and Yang, Z., 2014, Using Landsat-derived disturbance and recovery history and lidar to map forest biomass dynamics: Remote Sensing of Environment, v. 151, p. 124-137, at http://dx.doi.org/10.1016/j.rse.2013.05.033.

Pflugmacher, D., Krankina, O.N., and Cohen, W.B., 2007, Satellite-based peatland mapping—Potential of the MODIS sensor: Global and Planetary Change, v. 56, no. 3-4, p. 248-257, at http://dx.doi.org/10.1016/j.gloplacha.2006.07.019.

Pflugmacher, D., Krankina, O.N., Cohen, W.B., Friedl, M.A., Sulla-Menashe, D., Kennedy, R.E., Nelson, P., Loboda, T.V., Kuemmerle, T., et al., 2011, Comparison and assessment of coarse resolution land cover maps for Northern Eurasia: Remote Sensing of Environment, v. 115, no. 12, p. 3539-3553, at http://dx.doi.org/10.1016/j.rse.2011.08.016.

Phillips, R.D., Blinn, C.E., Watson, L.T., and Wynne, R.H., 2009, An adaptive noise-filtering algorithm for AVIRIS data with implications for classification accuracy: IEEE Transactions on Geoscience and Remote Sensing, v. 47, no. 9, p. 3168-3179, at http://dx.doi.org/10.1109/TGRS.2009.2020156.

Phillips, R.D., Hossain, M.S., Watson, L.T., Wynne, R.H., and Ramakrishnan, N., 2014, Enrichment procedures for soft clusters—a statistical test and its applications: CMES - Computer Modeling in Engineering and Sciences, v. 97, no. 2, p. 175-197, at http://dx.doi.org/10.3970/cmes.2014.097.175.

Phillips, R.D., Watson, L.T., Easterling, D.R., and Wynne, R.H., 2014, An SMP soft classification algorithm for remote sensing: Computers and Geosciences, v. 68, p. 73-80, at http://dx.doi.org/10.1016/j.cageo.2014.03.010.

Phillips, R.D., Watson, L.T., Ramakrishnan, N., and Wynne, R.H., 2009, A hypothesis test for the evaluation of soft clusters for classification, *in* Arabnia, H.R., and Schaefer, G., eds., International Conference on Image Processing, Computer Vision, & Pattern Recognition, Las Vegas, Nev., 13-

16 July 2009, Proceedings: Athens, Ga., CSREA Press, p. 672-678, at http://people.cs.vt.edu/~naren/papers/ipcv09-hyptest.

Phillips, R.D., Watson, L.T., Ramakrishnan, N., and Wynne, R.H., 2009, An iterative framework for the improvement of soft clusters for classification, *in* Arabnia, H.R., and Schaefer, G., eds., International Conference on Image Processing, Computer Vision, & Pattern Recognition, Las Vegas, Nev., 13-16 July 2009, Proceedings: Athens, Ga., CSREA Press, p. 766-772, at http://people.cs.vt.edu/~ramakris/papers/ipcv09-iterative.pdf.

Phillips, R.D., Watson, L.T., and Wynne, R.H., 2008, A fuzzy homogeneity test for the iterative guided spectral class rejection algorithm, *in* International Geoscience and Remote Sensing Symposium, Boston, Mass., 7-11 July 2008, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. II883-II886, at http://dx.doi.org/10.1109/IGARSS.2008.4779136.

Phillips, R.D., Watson, L.T., and Wynne, R.H., 2007, Hybrid image classification and parameter selection using a shared memory parallel algorithm: Computers and Geosciences, v. 33, no. 7, p. 875-897, at http://dx.doi.org/10.1016/j.cageo.2006.10.014.

Phillips, R.D., Watson, L.T., and Wynne, R.H., 2008, A shared memory parallel algorithm for data reduction using the singular value decomposition, *in* Rajaei, H., Wainer, G., and Chinni, M., eds., Spring Simulation Multiconference, Ottawa, Canada, 14-17 April 2008, Proceedings: San Diego, Calif., Society of Computer Simulation International, p. 459-466, at http://dx.doi.org/10.1145/1400549.1400619.

Phillips, R.D., Watson, L.T., and Wynne, R.H., 2008, A study of fuzzy clustering within the IGSCR framework, *in* Annual Southeast Regional Conference, 46th, Auburn, Ala., 28-29 March 2008, Proceedings: New York, N.Y., Association for Computing Machinery, p. 140-145, at http://dx.doi.org/10.1145/1593105.1593142.

Phillips, R.D., Watson, L.T., Wynne, R.H., and Blinn, C.E., 2009, Feature reduction using a singular value decomposition for the iterative guided spectral class rejection hybrid classifier: ISPRS Journal of Photogrammetry and Remote Sensing, v. 64, no. 1, p. 107-116, at http://dx.doi.org/10.1016/j.isprsjprs.2008.03.004.

Phillips, R.D., Watson, L.T., Wynne, R.H., and Ramakrishnan, N., 2012, Continuous iterative guided spectral class rejection classification algorithm: IEEE Transactions on Geoscience and Remote Sensing, v. 50, no. 6, p. 2303-2317, at http://dx.doi.org/10.1109/TGRS.2011.2173802.

Phillips, R.D., Zhang, J., Watson, L.T., Blinn, C.E., and Wynne, R.H., 2008, An adaptive noise filtering algorithm based on the maximum noise fraction, *in* Arabnia, H., ed., International Conference on Image Processing, Computer Vision, & Pattern Recognition, Las Vegas, Nev., 14-17 July 2008, Proceedings: Athens, Ga., CSREA Press, p. 717-723.

Pickell, P.D., Hermosilla, T., Frazier, R.J., Coops, N.C., and Wulder, M.A., 2016, Forest recovery trends derived from Landsat time series for North American boreal forests: International Journal of Remote Sensing, v. 37, no. 1, p. 138-149, at http://dx.doi.org/10.1080/2150704X.2015.1126375.

Pike, A., Danner, E., Boughton, D., Melton, F., Nemani, R., Rajagopalan, B., and Lindley, S., 2013, Forecasting river temperatures in real time using a stochastic dynamics approach: Water Resources Research, v. 49, no. 9, p. 5168-5182, at http://dx.doi.org/10.1002/wrcr.20389.

Pinheiro, T.F., Escada, M.I.S., Valeriano, D.M., Hostert, P., Gollnow, F., and Müller, H., 2016, Forest degradation associated with logging frontier expansion in the Amazon—The BR-163 region in

southwestern Pará, Brazil: Earth Interactions, v. 20, no. 17, at http://dx.doi.org/10.1175/EI-D-15-0016.1.

Pinto, C., Ponzoni, F., Castro, R., Leigh, L., Mishra, N., Aaron, D., and Helder, D., 2016, First in-flight radiometric calibration of MUX and WFI on-board CBERS-4: Remote Sensing, v. 8, no. 5, at http://dx.doi.org/10.3390/rs8050405.

Pinto, C.T., Ponzoni, F.J., Castro, R.M., Leigh, L., Kaewmanee, M., Aaron, D., and Helder, D., 2016, Evaluation of the uncertainty in the spectral band adjustment factor (SBAF) for cross-calibration using Monte Carlo simulation: Remote Sensing Letters, v. 7, no. 9, p. 837-846, at http://dx.doi.org/10.1080/2150704X.2016.1190474.

Pinty, B., Taberner, M., Haemmerle, V.R., Paradise, S.R., Vermote, E., Verstraete, M.M., Gobron, N., and Widlowski, J.L., 2011, Corrigendum: Journal of Climate, v. 24, no. 17, p. 4769-4769, at http://dx.doi.org/10.1175/JCLI-D-11-00126.1.

Pinty, B., Taberner, M., Haemmerle, V.R., Paradise, S.R., Vermote, E., Verstraete, M.M., Gobron, N., and Widlowski, J.L., 2011, Global-scale comparison of MISR and MODIS land surface albedos: Journal of Climate, v. 24, no. 3, p. 732-749, at http://dx.doi.org/10.1175/2010JCLI3709.1.

Pittman, K., Hansen, M.C., Becker-Reshef, I., Potapov, P.V., and Justice, C.O., 2010, Estimating global cropland extent with multi-year MODIS data: Remote Sensing, v. 2, no. 7, p. 1844-1863, at http://dx.doi.org/10.3390/rs2071844.

Platonov, A., Thenkabail, P.S., Biradar, C.M., Cai, X., Gumma, M., Dheeravath, V., Cohen, Y., Alchanatis, V., Goldshlager, N., et al., 2008, Water productivity mapping (WPM) using Landsat ETM+ data for the irrigated croplands of the Syrdarya river basin in Central Asia: Sensors, v. 8, no. 12, p. 8156-8180, at http://dx.doi.org/10.3390/s8128156.

Plieninger, T., Schleyer, C., Mantel, M., and Hostert, P., 2012, Is there a forest transition outside forests? Trajectories of farm trees and effects on ecosystem services in an agricultural landscape in Eastern Germany: Land Use Policy, v. 29, no. 1, p. 233-243, at http://dx.doi.org/10.1016/j.landusepol.2011.06.011.

Plutzar, C., Kroisleitner, C., Haberl, H., Fetzel, T., Bulgheroni, C., Beringer, T., Hostert, P., Kastner, T., Kuemmerle, T., et al., 2016, Changes in the spatial patterns of human appropriation of net primary production (HANPP) in Europe 1990–2006: Regional Environmental Change, v. 16, no. 5, p. 1225-1238, at http://dx.doi.org/10.1007/s10113-015-0820-3.

Pŏçasa, I., Cunha, M., Pereira, L.S., and Allen, R.G., 2012, Using remote sensing energy balance and evapotranspiration to characterize montane landscape vegetation with focus on grass and pasture lands: International Journal of Applied Earth Observation and Geoinformation, v. 21, no. 1, p. 159-172, at http://dx.doi.org/10.1016/j.jag.2012.08.017.

Polgar, C.A., Primack, R.B., Dukes, J.S., Schaaf, C., Wang, Z., and Hoeppner, S.S., 2014, Tree leaf out response to temperature—Comparing field observations, remote sensing, and a warming experiment: International Journal of Biometeorology, v. 58, no. 6, p. 1251-1257, at http://dx.doi.org/10.1007/s00484-013-0718-z.

Pope, A., Scambos, T.A., Moussavi, M., Tedesco, M., Willis, M., Shean, D., and Grigsby, S., 2016, Estimating supraglacial lake depth in West Greenland using Landsat 8 and comparison with other multispectral methods: Cryosphere, v. 10, no. 1, p. 15-27, at http://dx.doi.org/10.5194/tc-10-15-2016.

Potapov, P., Hansen, M.C., Stehman, S.V., Loveland, T.R., and Pittman, K., 2008, Combining MODIS and Landsat imagery to estimate and map boreal forest cover loss: Remote Sensing of Environment, v. 112, no. 9, p. 3708-3719, at http://dx.doi.org/10.1016/j.rse.2008.05.006.

Potapov, P.V., Turubanova, S.A., Hansen, M.C., Adusei, B., Broich, M., Altstatt, A., Mane, L., and Justice, C.O., 2012, Quantifying forest cover loss in Democratic Republic of the Congo, 2000-2010, with Landsat ETM+ data: Remote Sensing of Environment, v. 122, p. 106-116, at http://dx.doi.org/10.1016/j.rse.2011.08.027.

Potere, D., Woodcock, C.E., Schneider, A., Ozdogan, M., and Baccini, A., 2007, Patterns in forest clearing along the Appalachian Trail Corridor: Photogrammetric Engineering and Remote Sensing, v. 73, no. 7, p. 783-791, at http://dx.doi.org/10.14358/PERS.73.7.783.

Potter, C., Klooster, S., Nemani, R., Genovese, V., Hiatt, S., Fladeland, M., and Gross, P., 2006, Estimating carbon budgets for U.S. ecosystems: Eos, v. 87, no. 8, p. 85-87, at http://dx.doi.org/10.1029/2006EO080001.

Potter, C., Kumar, V., Klooster, S., and Nemani, R., 2007, Recent history of trends in vegetation greenness and large-scale ecosystem disturbances in Eurasia: Tellus, Series B—Chemical and Physical Meteorology, v. 59, no. 2, p. 260-272, at http://dx.doi.org/10.1111/j.1600-0889.2006.00245.x.

Powell, S.L., Cohen, W.B., Healey, S.P., Kennedy, R.E., Moisen, G.G., Pierce, K.B., and Ohmann, J.L., 2010, Quantification of live aboveground forest biomass dynamics with Landsat time-series and field inventory data—A comparison of empirical modeling approaches: Remote Sensing of Environment, v. 114, no. 5, p. 1053-1068, at http://dx.doi.org/10.1016/j.rse.2009.12.018.

Powell, S.L., Cohen, W.B., Kennedy, R.E., Healey, S.P., and Huang, C., 2014, Observation of trends in biomass loss as a result of disturbance in the conterminous U.S.—1986-2004: Ecosystems, v. 17, no. 1, p. 142-157, at http://dx.doi.org/10.1007/s10021-013-9713-9.

Powell, S.L., Cohen, W.B., Yang, Z., Pierce, J.D., and Alberti, M., 2008, Quantification of impervious surface in the Snohomish Water Resources Inventory Area of Western Washington from 1972-2006: Remote Sensing of Environment, v. 112, no. 4, p. 1895-1908, at http://dx.doi.org/10.1016/j.rse.2007.09.010.

Powell, S.L., Pflugmacher, D., Kirschbaum, A.A., Kim, Y., and Cohen, W.B., 2007, Moderate resolution remote sensing alternatives—A review of Landsat-like sensors and their applications: Journal of Applied Remote Sensing, v. 1, no. 1, citation identifier 012506, at http://dx.doi.org/10.1117/1.2819342.

Powers, R.P., Coops, N.C., Morgan, J.L., Wulder, M.A., Nelson, T.A., Drever, C.R., and Cumming, S.G., 2013, A remote sensing approach to biodiversity assessment and regionalization of the Canadian boreal forest: Progress in Physical Geography, v. 37, no. 1, p. 36-62, at http://dx.doi.org/10.1177/0309133312457405.

Powers, R.P., Coops, N.C., Nelson, T., and Wulder, M.A., 2016, Evaluating nature reserve design efficacy in the Canadian boreal forest using time series AVHRR data: Canadian Journal of Remote Sensing, v. 42, no. 3, p. 171-189, at http://dx.doi.org/10.1080/07038992.2016.1171065.

Powers, R.P., Coops, N.C., Nelson, T., Wulder, M.A., and Ronnie Drever, C., 2013, Integrating accessibility and intactness into large-area conservation planning in the Canadian boreal forest: Biological Conservation, v. 167, p. 371-379, at http://dx.doi.org/10.1016/j.biocon.2013.08.032.

Proud, S.R., Zhang, Q., Schaaf, C.B., Fensholt, R., Rasmussen, M.O., Shisanya, C., Mutero, W., Mbow, C., Anyamba, A., et al., 2014, The normalization of surface anisotropy effects present in SEVIRI reflectances by using the MODIS BRDF method: IEEE Transactions on Geoscience and Remote Sensing, v. 52, no. 10, p. 6026-6039, at http://dx.doi.org/10.1109/TGRS.2013.2294602.

Prueger, J.H., Alfieri, J.G., Hipps, L.E., Kustas, W.P., Chavez, J.L., Evett, S.R., Anderson, M.C., French, A.N., Neale, C.M.U., et al., 2012, Patch scale turbulence over dryland and irrigated surfaces in a semi-arid landscape under advective conditions during BEAREX08: Advances in Water Resources, v. 50, p. 106-119, at http://dx.doi.org/10.1016/j.advwatres.2012.07.014.

Qiao, C., Luo, J., Sheng, Y., Shen, Z., Zhu, Z., and Ming, D., 2012, An adaptive water extraction method from remote sensing image based on NDWI: Journal of the Indian Society of Remote Sensing, v. 40, no. 3, p. 421-433, at http://dx.doi.org/10.1007/s12524-011-0162-7.

Qu, J.J., and Justice, C.O., 2007, The EastFIRE special edition—Selected papers from the EastFIRE Conference on the Application of Remote Sensing to Fire Research in the Eastern United States: Remote Sensing of Environment, v. 108, no. 2, p. 121-122, at http://dx.doi.org/10.1016/j.rse.2006.09.027.

Rabe, A., Van Der Linden, S., and Hostert, P., 2009, Simplifying support vector machines for regression analysis of hyperspectral imagery, *in* Evolution in remote sensing, First Workshop on Hyperspectral Image and Signal Processing, Grenoble, France, 26-28 August 2009, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), article number 5289090, at http://dx.doi.org/10.1109/WHISPERS.2009.5289090.

Randles, C.A., Kinne, S., Myhre, G., Schulz, M., Stier, P., Fischer, J., Doppler, L., Highwood, E., Ryder, C., et al., 2013, Intercomparison of shortwave radiative transfer schemes in global aerosol modeling—Results from the AeroCom Radiative Transfer Experiment: Atmospheric Chemistry and Physics, v. 13, no. 5, p. 2347-2379, at http://dx.doi.org/10.5194/acp-13-2347-2013.

Rascher, U., Agati, G., Alonso, L., Cecchi, G., Champagne, S., Colombo, R., Damm, A., Daumard, F., De Miguel, E., et al., 2009, CEFLES2—The remote sensing component to quantify photosynthetic efficiency from the leaf to the region by measuring sun-induced fluorescence in the oxygen absorption bands: Biogeosciences, v. 6, no. 7, p. 1181-1198, at http://dx.doi.org/10.5194/bg-6-1181-2009.

Rascher, U., Damm, A., Van Der Linden, S., Okujeni, A., Pieruschka, R., Schickling, A., and Hostert, P., 2010, Sensing of photosynthetic activity of crops, chap. 6 *of* Oerke, E.-C., Gerhards, R., Menz, G., and Sikora, R.A., eds., Precision crop protection—The challenge and use of heterogeneity: Netherlands, Springer, p. 87-99, at http://dx.doi.org/10.1007/978-90-481-9277-9_6.

Rebesco, M., Domack, E., Zgur, F., Lavoie, C., Leventer, A., Brachfeld, S., Willmott, V., Halverson, G., Truffer, M., et al., 2014, Boundary condition of grounding lines prior to collapse, Larsen-B Ice Shelf, Antarctica: Science, v. 345, no. 6202, p. 1354-1358, at http://dx.doi.org/10.1126/science.1256697.

Rees, G., Headland, R., Scambos, T., and Haran, T., 2014, Finding the Arctic pole of inaccessibility: Polar Record, v. 50, no. 1, p. 86-91, at http://dx.doi.org/10.1017/S003224741300051X.

Reid, P., Stammerjohn, S., Massom, R., Scambos, T., and Lieser, J., 2015, The record 2013 Southern Hemisphere sea-ice extent maximum: Annals of Glaciology, v. 56, no. 69, p. 99-106, at http://dx.doi.org/10.3189/2015AoG69A892.

Ren, H., Jiang, X., Gao, F., and Zhang, Z., 2014, Absolute height measurement of specular surfaces with modified active fringe reflection photogrammetry, *in* Furlong, C., Gorecki, C., de Groot, P.J., and Novak, E.L., eds., Interferometry XVII—Advanced Applications, San Diego, Calif., 18-20 August 2014, Proceedings of SPIE Vol. 9204: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 920408, at http://dx.doi.org/10.1117/12.2060203.

Reuter, D., Irons, J., Lunsford, A., Montanaro, M., Pellerano, F., Richardson, C., Smith, R., Tesfaye, Z., and Thome, K., 2011, The Operational Land Imager (OLI) and the Thermal Infrared Sensor (TIRS) on the Landsat Data Continuity Mission (LDCM), *in* Shen, s.S., and Lewis, P.E., eds., Algorithms and Technologies for Multispectral, Hyperspectral, and Ultraspectral Imagery XVII, Orlando, Fla., 25-28 April 2011, Proceedings of SPIE Vol. 8048: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 804812, at http://dx.doi/org/10.1117/12.885963.

Reuter, D., Richardson, C., Irons, J., Allen, R., Anderson, M., Budinoff, J., Casto, G., Coltharp, C., Finneran, P., et al., 2010, The thermal infrared sensor on the Landsat Data Continuity Mission, *in* International Geoscience and Remote Sensing Symposium, Honolulu, Hawaii, 25-30 July 2010, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 754-757, at http://dx.doi/org/10.1109/IGARSS.2010.5653746.

Reuter, D.C., Richardson, C.M., Pellerano, F.A., Irons, J.R., Allen, R.G., Anderson, M., Jhabvala, M.D., Lunsford, A.W., Montanaro, M., et al., 2015, The thermal infrared sensor (TIRS) on Landsat 8—Design overview and pre-launch characterization: Remote Sensing, v. 7, no. 1, p. 1135-1153, at http://dx.doi.org/10.3390/rs70101135.

Richter, N., Jarmer, T., Chabrillat, S., Oyonarte, C., Hostert, P., and Kaufmann, H., 2009, Free iron oxide determination in mediterranean soils using diffuse reflectance spectroscopy: Soil Science Society of America Journal, v. 73, no. 1, p. 72-81, at http://dx.doi.org/10.2136/sssaj2008.0025.

Rittenhouse, C.D., Pidgeon, A.M., Albright, T.P., Culbert, P.D., Clayton, M.K., Flather, C.H., Huang, C., Masek, J.G., and Radeloff, V.C., 2010, Avifauna response to hurricanes—Regional changes in community similarity: Global Change Biology, v. 16, no. 3, p. 905-917, at http://dx.doi.org/10.1111/j.1365-2486.2009.02101.x.

Rittenhouse, C.D., Pidgeon, A.M., Albright, T.P., Culbert, P.D., Clayton, M.K., Flather, C.H., Huang, C., Masek, J.G., Stewart, S.I., et al., 2010, Conservation of forest birds—Evidence of a shifting baseline in community structure: PLoS ONE, v. 5, no. 8, article number e11938, at http://dx.doi.org/10.1371/journal.pone.0011938.

Rittenhouse, C.D., Pidgeon, A.M., Albright, T.P., Culbert, P.D., Clayton, M.K., Flather, C.H., Masek, J.G., and Radeloff, V.C., 2012, Land-cover change and avian diversity in the conterminous United States: Conservation Biology, v. 26, no. 5, p. 821-829, at http://dx.doi.org/10.1111/j.1523-1739.2012.01867.x.

Robertson, C., Farmer, C.J.Q., Nelson, T.A., MacKenzie, I.K., Wulder, M.A., and White, J.C., 2009, Determination of the compositional change (1999-2006) in the pine forests of British Columbia due to mountain pine beetle infestation: Environmental Monitoring and Assessment, v. 158, no. 1-4, p. 593-608, at http://dx.doi.org/10.1007/s10661-008-0607-9.

Robertson, C., Nelson, T.A., Boots, B., and Wulder, M.A., 2007, STAMP—Spatial-temporal analysis of moving polygons: Journal of Geographical Systems, v. 9, no. 3, p. 207-227, at http://dx.doi.org/10.1007/s10109-007-0044-2.

Robertson, C., Nelson, T.A., Jelinski, D.E., Wulder, M.A., and Boots, B., 2009, Spatial-temporal analysis of species range expansion—The case of the mountain pine beetle, Dendroctonus ponderosae: Journal of Biogeography, v. 36, no. 8, p. 1446-1458, at http://dx.doi.org/10.1111/j.1365-2699.2009.02100.x.

Robertson, C., Wulder, M.A., Nelson, T.A., and White, J.C., 2008, Risk rating for mountain pine beetle infestation of lodgepole pine forests over large areas with ordinal regression modelling: Forest Ecology and Management, v. 256, no. 5, p. 900-912, at http://dx.doi.org/10.1016/j.foreco.2008.05.054.

Rogan, J., Franklin, J., Stow, D., Miller, J., Woodcock, C., and Roberts, D., 2008, Mapping land-cover modifications over large areas—A comparison of machine learning algorithms: Remote Sensing of Environment, v. 112, no. 5, p. 2272-2283, at http://dx.doi.org/10.1016/j.rse.2007.10.004.

Roger, J.C., Mallet, M., Dubuisson, P., Cachier, H., Vermote, E., Dubovik, O., and Despiau, S., 2006, A synergetic approach for estimating the local direct aerosol forcing—Application to an urban zone during the Expérience sur Site pour Contraindre les Modèles de Pollution et de Transport d'Emission (ESCOMPTE) experiment: Journal of Geophysical Research D—Atmospheres, v. 111, no. 13, citation number D13208, at http://dx.doi.org/10.1029/2005JD006361.

Roggeri, P., Belward, A., Mayaux, P., Eva, H., Brink, A., Dubois, G., Peedell, S., and Leo, O., 2010, Sustainable development in developing countries—The African, Caribbean and Pacific observatory: Technological and Economic Development of Economy, v. 16, no. 4, p. 736-752, at http://dx.doi.org/10.3846/tede.2010.45.

Roman, M.O., Csiszar, I., Justice, C., Key, J., Privette, J., Devadiga, S., Davidson, C., Wolfe, R.E., and Masuoka, E.J., 2012, Status of the Suomi NPP visible/infrared imager radiometer suite's (VIIRS) land environmental data records (EDRs) after early evaluation of on-orbit performance, *in* International Geoscience and Remote Sensing Symposium, Munich, Germany, 22-27 July 2012, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 1084-1087, at http://dx.doi/org/10.1109/IGARSS.2012.6351360.

Román, M.O., Gatebe, C.K., Schaaf, C.B., Poudyal, R., Wang, Z., and King, M.D., 2011, Variability in surface BRDF at different spatial scales (30m-500m) over a mixed agricultural landscape as retrieved from airborne and satellite spectral measurements: Remote Sensing of Environment, v. 115, no. 9, p. 2184-2203, at http://dx.doi.org/10.1016/j.rse.2011.04.012.

Roman, M.O., Gatebe, C.K., Shuai, Y., Wang, Z., Gao, F., Masek, J.G., He, T., Liang, S., and Schaaf, C.B., 2013, Use of in situ and airborne multiangle data to assess MODIS- and Landsat-based estimates of directional reflectance and albedo: IEEE Transactions on Geoscience and Remote Sensing, v. 51, no. 3, p. 1393-1404, at http://dx.doi.org/10.1109/TGRS.2013.2243457.

Román, M.O., Justice, C., Csiszar, I., Key, J.R., Devadiga, S., Davidson, C., Wolfe, R., and Privette, J., 2011, Pre-launch evaluation of the NPP VIIRS Land and Cryosphere EDRs to meet NASA's science requirements, *in* International Geoscience and Remote Sensing Symposium, Vancouver, Canada, 24-29 July 2011, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 154-157, at http://dx.doi/org/10.1109/IGARSS.2011.6048921.

Román, M.O., Schaaf, C.B., Lewis, P., Gao, F., Anderson, G.P., Privette, J.L., Strahler, A.H., Woodcock, C.E., and Barnsley, M., 2010, Assessing the coupling between surface albedo derived from MODIS and the fraction of diffuse skylight over spatially-characterized landscapes: Remote Sensing of Environment, v. 114, no. 4, p. 738-760, at http://dx.doi.org/10.1016/j.rse.2009.11.014.

Román, M.O., Schaaf, C.B., Woodcock, C.E., Strahler, A.H., Yang, X., Braswell, R.H., Curtis, P.S., Davis, K.J., Dragoni, D., et al., 2009, The MODIS (Collection V005) BRDF/albedo product—Assessment of spatial representativeness over forested landscapes: Remote Sensing of Environment, v. 113, no. 11, p. 2476-2498, at http://dx.doi.org/10.1016/j.rse.2009.07.009.

Rosa, R.D., Paredes, P., Rodrigues, G.C., Alves, I., Fernando, R.M., Pereira, L.S., and Allen, R.G., 2012, Implementing the dual crop coefficient approach in interactive software—1. Background and computational strategy: Agricultural Water Management, v. 103, p. 8-24, at http://dx.doi.org/10.1016/j.agwat.2011.10.013.

Rosa, R.D., Paredes, P., Rodrigues, G.C., Fernando, R.M., Alves, I., Pereira, L.S., and Allen, R.G., 2012, Implementing the dual crop coefficient approach in interactive software—2. Model testing: Agricultural Water Management, v. 103, p. 62-77, at http://dx.doi.org/10.1016/j.agwat.2011.10.018.

Rose, R.A., Byler, D., Eastman, J.R., Fleishman, E., Geller, G., Goetz, S., Guild, L., Hamilton, H., Hansen, M., et al., 2015, Ten ways remote sensing can contribute to conservation: Conservation Biology, v. 29, no. 2, p. 350-359, at http://dx.doi.org/10.1111/cobi.12397.

Rotz, J.D., Abaye, A.O., Wynne, R.H., Rayburn, E.B., Scaglia, G., and Phillips, R.D., 2008, Classification of digital photography for measuring productive ground cover: Rangeland Ecology and Management, v. 61, no. 2, p. 245-248, at http://dx.doi.org/10.2111/07-011.1.

Roy, D.P., and Boschetti, L., 2009, Southern Africa validation of the MODIS, L3JRC, and GlobCarbon burned-area products: IEEE Transactions on Geoscience and Remote Sensing, v. 47, no. 4, p. 1032-1044, at http://dx.doi.org/10.1109/TGRS.2008.2009000.

Roy, D.P., Boschetti, L., and Justice, C., 2006, Global mapping of fire-affected areas using multitemporal MODIS data—The MCD45 product, *in* International Geoscience and Remote Sensing Symposium, Denver, Colo., 31 July-4 August 2006, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 4165-4168, at http://dx.doi.org/10.1109/IGARSS.2006.1068.

Roy, D.P., Boschetti, L., Justice, C.O., and Ju, J., 2008, The collection 5 MODIS burned area product—Global evaluation by comparison with the MODIS active fire product: Remote Sensing of Environment, v. 112, no. 9, p. 3690-3707, at http://dx.doi.org/10.1016/j.rse.2008.05.013.

Roy, D.P., Boschetti, L., Maier, S.W., and Smith, A.M.S., 2010, Field estimation of ash and char colour-lightness using a standard grey scale: International Journal of Wildland Fire, v. 19, no. 6, p. 698-704, at http://dx.doi.org/10.1071/WF09133.

Roy, D.P., Boschetti, L., and Trigg, S.N., 2006, Remote sensing of fire severity—Assessing the performance of the normalized burn ratio: IEEE Geoscience and Remote Sensing Letters, v. 3, no. 1, p. 112-116, at http://dx.doi.org/10.1109/LGRS.2005.858485.

Roy, D.P., Ju, J., Kline, K., Scaramuzza, P.L., Kovalskyy, V., Hansen, M., Loveland, T.R., Vermote, E., and Zhang, C., 2010, Web-enabled Landsat Data (WELD)—Landsat ETM+ composited mosaics of the conterminous United States: Remote Sensing of Environment, v. 114, no. 1, p. 35-49, at http://dx.doi.org/10.1016/j.rse.2009.08.011.

Roy, D.P., Ju, J., Lewis, P., Schaaf, C., Gao, F., Hansen, M., and Lindquist, E., 2008, Multi-temporal MODIS-Landsat data fusion for relative radiometric normalization, gap filling, and prediction of Landsat data: Remote Sensing of Environment, v. 112, no. 6, p. 3112-3130, at http://dx.doi.org/10.1016/j.rse.2008.03.009.

Roy, D.P., Ju, J., Mbow, C., Frost, P., and Loveland, T., 2010, Accessing free Landsat data via the Internet—Africa's challenge: Remote Sensing Letters, v. 1, no. 2, p. 111-117, at http://dx.doi.org/10.1080/01431160903486693.

Roy, D.P., Kovalskyy, V., Zhang, H., Yan, L., and Kommareddy, I., 2015, The utility of Landsat data for global long term terrestrial monitoring, Remote Sensing and Digital Image Processing, v. 22, p. 289-305, at http://dx.doi.org/10.1007/978-3-319-15967-6_14.

Roy, D.P., Kovalskyy, V., Zhang, H.K., Vermote, E.F., Yan, L., Kumar, S.S., and Egorov, A., in press, Characterization of Landsat-7 to Landsat-8 reflective wavelength and normalized difference vegetation index continuity: Remote Sensing of Environment, p. 0-0, at http://dx.doi.org/10.1016/j.rse.2015.12.024.

Roy, D.P., and Kumar, S.S., 2016, Multi-year MODIS active fire type classification over the Brazilian Tropical Moist Forest Biome: International Journal of Digital Earth, p. 1-31, at http://dx.doi.org/10.1080/17538947.2016.1208686.

Roy, D.P., Lewis, P., Schaaf, C.B., Devadiga, S., and Boschetti, L., 2006, The global impact of clouds on the production of MODIS bidirectional reflectance model-based composites for terrestrial monitoring: IEEE Geoscience and Remote Sensing Letters, v. 3, no. 4, p. 452-456, at http://dx.doi.org/10.1109/LGRS.2006.875433.

Roy, D.P., Qin, Y., Kovalskyy, V., Vermote, E.F., Ju, J., Egorov, A., Hansen, M.C., Kommareddy, I., and Yan, L., 2014, Conterminous United States demonstration and characterization of MODIS-based Landsat ETM+ atmospheric correction: Remote Sensing of Environment, v. 140, p. 433-449, at http://dx.doi.org/10.1016/j.rse.2013.09.012.

Roy, D.P., Trigg, S.N., Bhima, R., Brockett, B.H., Dube, O.P., Frost, P., Govender, N., Landmann, T., Le Roux, J., et al., 2006, The utility of satellite fire product accuracy information-perspectives and recommendations from the Southern Africa Fire Network: IEEE Transactions on Geoscience and Remote Sensing, v. 44, no. 7, p. 1928-1930, at http://dx.doi.org/10.1109/TGRS.2006.871200.

Roy, D.P., Wulder, M.A., Loveland, T.R., C.E, W., Allen, R.G., Anderson, M.C., Helder, D., Irons, J.R., Johnson, D.M., et al., 2014, Landsat-8—Science and product vision for terrestrial global change research: Remote Sensing of Environment, v. 145, p. 154-172, at http://dx.doi.org/10.1016/j.rse.2014.02.001.

Roy, D.P., Zhang, H.K., Ju, J., Gomez-Dans, J.L., Lewis, P.E., Schaaf, C.B., Sun, Q., Li, J., Huang, H., et al., 2016, A general method to normalize Landsat reflectance data to nadir BRDF adjusted reflectance: Remote Sensing of Environment, v. 176, p. 255-271, at http://dx.doi.org/10.1016/j.rse.2016.01.023.

Rubio, E., Colin, J., D'Urso, G., Trezza, R., Allen, R., Calera, A., González, J., Jochum, A., Menenti, M., et al., 2006, Golden day comparison of methods to retrieve et (Kc-NDVI, Kc-analytical, MSSEBS, METRIC), *in* E'Urso, G., and Osann Jochum, M.A., eds., AIP Conference, Naples, Italy, 10-11 November 2005, Proceedings: Melville, N.Y., American Institute of Physics, p. 193-200, at http://dx.doi.org/10.1063/1.2349344.

Ruefenacht, B., Finco, M.V., Nelson, M.D., Czaplewski, R., Helmer, E.H., Blackard, J.A., Holden, G.R., Lister, A.J., Salajanu, D., et al., 2008, Conterminous U.S. and Alaska forest type mapping using forest inventory and analysis data: Photogrammetric Engineering and Remote Sensing, v. 74, no. 11, p. 1379-1388, at http://dx.doi.org/10.14358/PERS.74.11.1379.

Rutan, D., Rose, F., Roman, M., Manalo-Smith, N., Schaaf, C., and Charlock, T., 2009, Development and assessment of broadband surface albedo from Clouds and the Earth's Radiant Energy System Clouds and Radiation Swath data product: Journal of Geophysical Research D—Atmospheres, v. 114, no. 8, citation number D08125, at http://dx.doi.org/10.1029/2008JD010669.

Ryu, J.H., Contor, B., Johnson, G., Allen, R., and Tracy, J., 2012, System dynamics to sustainable water resources management in the eastern Snake Plain Aquifer under water supply uncertainty: Journal of the American Water Resources Association, v. 48, no. 6, p. 1204-1220, at http://dx.doi.org/10.1111/j.1752-1688.2012.00681.x.

Saarinen, N., Vastaranta, M., Honkavaara, E., Wulder, M.A., White, J.C., Litkey, P., Holopainen, M., and Hyyppä, J., 2015, Mapping the risk of forest wind damage using airborne scanning LiDAR, *in* Toth, C., Holm, T., and Jutzi, B., eds., ISPRS Technical Commission I Symposium, Denver, Colo., 25-27 March 2015, The International Archives of Photogrammetry and Remote Sensing, XL-3/W2: Bethesda, Md., International Society for Photogrammetry and Remote Sensing, p. 189-196, at http://dx.doi.org/10.5194/isprsarchives-XL-3-W2-189-2015.

Saarinen, N., Vastaranta, M., Honkavaara, E., Wulder, M.A., White, J.C., Litkey, P., Holopainen, M., and Hyyppä, J., 2016, Using multi-source data to map and model the predisposition of forests to wind disturbance: Scandinavian Journal of Forest Research, v. 31, no. 1, p. 66-79, at http://dx.doi.org/10.1080/02827581.2015.1056751.

Saatchi, S., Asefi-Najafabady, S., Malhi, Y., Aragão, L.E.O.C., Anderson, L.O., Myneni, R.B., and Nemani, R., 2013, Persistent effects of a severe drought on Amazonian forest canopy: Proceedings of the National Academy of Sciences of the United States of America, v. 110, no. 2, p. 565-570, at http://dx.doi.org/10.1073/pnas.1204651110.

Salmon, B.P., Wessels, K.J., Van Den Bergh, F., Steenkamp, K., Kleynhans, W., Swanepoel, D., Roy, D., and Kovalskyy, V., 2013, Evaluation of rule-based classifier for Landsat-based automated land cover mapping in South Africa, *in* International Geoscience and Remote Sensing Symposium, Melbourne, Australia, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 4301-4304, at http://dx.doi.org/10.1109/IGARSS.2013.6723785.

Salomon, J.G., Schaaf, C.B., Strahler, A.H., Gao, F., and Jin, Y., 2006, Validation of the MODIS Bidirectional Reflectance Distribution Function and albedo retrievals using combined observations from the Aqua and Terra platforms: IEEE Transactions on Geoscience and Remote Sensing, v. 44, no. 6, p. 1555-1564, at http://dx.doi.org/10.1109/TGRS.2006.871564.

Samanta, A., Anderson, B.T., Ganguly, S., Knyazikhin, Y., Nemani, R.R., and Myneni, R.B., 2010, Physical climate response to a reduction of anthropogenic climate forcing: Earth Interactions, v. 14, no. 7, p. 1-11, at http://dx.doi.org/10.1175/2010EI325.1.

Samanta, A., Ganguly, S., Hashimoto, H., Devadiga, S., Vermote, E., Knyazikhin, Y., Nemani, R.R., and Myneni, R.B., 2010, Amazon forests did not green-up during the 2005 drought: Geophysical Research Letters, v. 37, no. 5, citation number L05401, at http://dx.doi.org/10.1029/2009GL042154.

Samanta, A., Ganguly, S., Vermote, E., Nemani, R.R., and Myneni, R.B., 2012, Interpretation of variations in MODIS-measured greenness levels of Amazon forests during 2000 to 2009: Environmental Research Letters, v. 7, no. 2, article number 02401, at http://dx.doi.org/10.1088/1748-9326/7/2/024018.

Samanta, A., Knyazikhin, Y., Xu, L., Dickinson, R.E., Fu, R., Costa, M.H., Saatchi, S.S., Nemani, R.R., and Myneni, R.B., 2012, Erratum—Seasonal changes in leaf area of Amazon forests from leaf flushing

and abscission (Journal of Geophysical Research (2012) 117 (G03004)): Journal of Geophysical Research G—Biogeosciences, v. 117, no. 3, citation number G03004, at http://dx.doi.org/10.1029/2012JG002083.

Samanta, A., Knyazikhin, Y., Xu, L., Dickinson, R.E., Fu, R., Costa, M.H., Saatchi, S.S., Nemani, R.R., and Myneni, R.B., 2012, Seasonal changes in leaf area of Amazon forests from leaf flushing and abscission: Journal of Geophysical Research G—Biogeosciences, v. 117, no. 1, citation number G01015, at http://dx.doi.org/10.1029/2011JG001818.

Sampson, D.A., Wynne, R.H., and Seiler, J.R., 2008, Edaphic and climate effects on forest stand development, net primary production, and net ecosystem productivity simulated for Coastal Plain loblolly pine in Virginia: Journal of Geophysical Research G—Biogeosciences, v. 113, no. 1, citation number G01003, at http://dx.doi.org/10.1029/2006JG000270.

Sánchez, J.M., Kustas, W.P., Caselles, V., and Anderson, M.C., 2008, Modelling surface energy fluxes over maize using a two-source patch model and radiometric soil and canopy temperature observations: Remote Sensing of Environment, v. 112, no. 3, p. 1130-1143, at http://dx.doi.org/10.1016/j.rse.2007.07.018.

Santos, C., Lorite, I.J., Allen, R.G., and Tasumi, M., 2012, Aerodynamic parameterization of the satellite-based energy balance (METRIC) model for ET estimation in rainfed olive orchards of Andalusia, Spain: Water Resources Management, v. 26, no. 11, p. 3267-3283, at http://dx.doi.org/10.1007/s11269-012-0071-8.

Santos, C., Lorite, I.J., Tasumi, M., Allen, R.G., and Fereres, E., 2008, Integrating satellite-based evapotranspiration with simulation models for irrigation management at the scheme level: Irrigation Science, v. 26, no. 3, p. 277-288, at http://dx.doi.org/10.1007/s00271-007-0093-9.

Santos, C., Lorite, I.J., Tasumi, M., Allen, R.G., and Fereres, E., 2010, Performance assessment of an irrigation scheme using indicators determined with remote sensing techniques: Irrigation Science, v. 28, no. 6, p. 461-477, at http://dx.doi.org/10.1007/s00271-010-0207-7.

Santos, C., Lorite, I.J., Tasumi, M., Allen, R.G., Gavilán, P., and Fereres, E., 2007, Integration of satellite-based energy balance with simulation models applied to irrigation management at an irrigation scheme of southern Spain, *in* Neale, C.M.U., Owe, M., and D'Urso, G., eds., Remote Sensing for Agriculture, Ecosystems, and Hydrology IX, Florence, Italy, 18–20 September 2007, Proceedings of SPIE Vol. 6742: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 67420P, at http://dx.doi.org/10.1117/12.737740.

Sasai, T., Nakai, S., Setoyama, Y., Ono, K., Kato, S., Mano, M., Murakami, K., Miyata, A., Saigusa, N., et al., 2012, Analysis of the spatial variation in the net ecosystem production of rice paddy fields using the diagnostic biosphere model, BEAMS: Ecological Modelling, v. 247, p. 175-189, at http://dx.doi.org/10.1016/j.ecolmodel.2012.08.016.

Sasai, T., Saigusa, N., Nasahara, K.N., Ito, A., Hashimoto, H., Nemani, R., Hirata, R., Ichii, K., Takagi, K., et al., 2011, Satellite-driven estimation of terrestrial carbon flux over Far East Asia with 1-km grid resolution: Remote Sensing of Environment, v. 115, no. 7, p. 1758-1771, at http://dx.doi.org/10.1016/j.rse.2011.03.007.

Scambos, T., 2011, Earth's ice—Sea level, climate, and our future commitment: Bulletin of the Atomic Scientists, v. 67, no. 1, p. 28-40, at http://dx.doi.org/10.1177/0096340210392965.

Scambos, T., and Abraham, J., 2015, Briefing—Antarctic ice sheet mass loss and future sea-level rise: Proceedings of the Institution of Civil Engineers—Forensic Engineering, v. 168, no. 2, p. 81-84, at http://dx.doi.org/10.1680/feng.14.00014.

Scambos, T., Fricker, H.A., Liu, C.C., Bohlander, J., Fastook, J., Sargent, A., Massom, R., and Wu, A.M., 2009, Ice shelf disintegration by plate bending and hydro-fracture—Satellite observations and model results of the 2008 Wilkins ice shelf break-ups: Earth and Planetary Science Letters, v. 280, no. 1-4, p. 51-60, at http://dx.doi.org/10.1016/j.epsl.2008.12.027.

Scambos, T., Ross, R., Bauer, R., Yermolin, Y., Skvarca, P., Long, D., Bohlander, J., and Haran, T., 2008, Calving and ice-shelf break-up processes investigated by proxy—Antarctic tabular iceberg evolution during northward drift: Journal of Glaciology, v. 54, no. 187, p. 579-591, at http://dx.doi.org/10.3189/002214308786570836.

Scambos, T., and Shuman, C., 2016, Comment on 'mass gains of the Antarctic ice sheet exceed losses' by H. J. Zwally and others: Journal of Glaciology, v. 62, no. 233, p. 599-603, at http://dx.doi.org/10.1017/jog.2016.59.

Scambos, T.A., Berthier, E., Haran, T., Shuman, C.A., Cook, A.J., Ligtenberg, S.R.M., and Bohlander, J., 2014, Detailed ice loss pattern in the northern Antarctic Peninsula—Widespread decline driven by ice front retreats: Cryosphere, v. 8, no. 6, p. 2135-2145, at http://dx.doi.org/10.5194/tc-8-2135-2014.

Scambos, T.A., Berthier, E., and Shuman, C.A., 2011, The triggering of subglacial lake drainage during rapid glacier drawdown—Crane Glacier, Antarctic Peninsula: Annals of Glaciology, v. 52, no. 59, p. 74-82, at http://dx.doi.org/10.3189/172756411799096204.

Scambos, T.A., Frezzotti, M., Haran, T., Bohlander, J., Lenaerts, J.T.M., Van Den Broeke, M.R., Jezek, K., Long, D., Urbini, S., et al., 2012, Extent of low-accumulation 'wind glaze' areas on the East Antarctic plateau—Implications for continental ice mass balance: Journal of Glaciology, v. 58, no. 210, p. 633-647, at http://dx.doi.org/10.3189/2012JoG11J232.

Scambos, T.A., Haran, T.M., Fahnestock, M.A., Painter, T.H., and Bohlander, J., 2007, MODIS-based Mosaic of Antarctica (MOA) data sets—Continent-wide surface morphology and snow grain size: Remote Sensing of Environment, v. 111, no. 2, p. 242-257, at http://dx.doi.org/10.1016/j.rse.2006.12.020.

Scambos, T.A., Haran, T.M., and Massom, R., 2006, Validation of AVHRR and MODIS ice surface temperature products using in situ radiometers: Annals of Glaciology, v. 44, no. 1, p. 345-351, at http://dx.doi.org/10.3189/172756406781811457.

Scambos, T.A., Ross, R., Haran, T., Bauer, R., Ainley, D.G., Seo, K.W., De Keyser, M., Behar, A., and MacAyeal, D.R., 2013, A camera and multisensor automated station design for polar physical and biological systems monitoring—AMIGOS: Journal of Glaciology, v. 59, no. 214, p. 303-314, at http://dx.doi.org/10.3189/2013JoG12J170.

Scaramuzza, P.L., Bouchard, M.A., and Dwyer, J.L., 2012, Development of the Landsat data continuity mission cloud-cover assessment algorithms: IEEE Transactions on Geoscience and Remote Sensing, v. 50, no. 4, p. 1140-1154, at http://dx.doi.org/10.1109/TGRS.2011.2164087.

Schaaf, C.B., Liu, J., Gao, F., and Strahler, A.H., 2011, Aqua and terra MODIS albedo and reflectance anisotropy products, Remote Sensing and Digital Image Processing, v. 11, p. 549-561, at http://dx.doi.org/10.1007/978-1-4419-6749-7_24.

Schaaf, C.B., Martonchik, J., Pinty, B., Govaerts, Y., Gao, F., Lattanzio, A., Liu, J., Strahler, A., and Taberner, M., 2008, Retrieval of surface albedo from satellite sensors, chap. 9 *of* Liang, S., ed., Advances in land remote sensing—System, modeling, inversion and application: Dordrecht, Springer, p. 219-243, at http://dx.doi.org/10.1007/978-1-4020-6450-0_9.

Schaaf, C.B., Wang, Z., and Strahler, A.H., 2011, Commentary on Wang and Zender-MODIS snow albedo bias at high solar zenith angles relative to theory and to in situ observations in Greenland: Remote Sensing of Environment, v. 115, no. 5, p. 1296-1300, at http://dx.doi.org/10.1016/j.rse.2011.01.002.

Schaepman-Strub, G., Schaepman, M.E., Martonchik, J., and Schaaf, C., 2006, What's in a satellite albedo product?, *in* International Geoscience and Remote Sensing Symposium, Denver, Colo., 31 July-4 August 2006, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 2848-2851, at http://dx.doi.org/10.1109/IGARSS.2006.732.

Schiefer, S., Hostert, P., and Damm, A., 2006, Correcting brightness gradients in hyperspectral data from urban areas: Remote Sensing of Environment, v. 101, no. 1, p. 25-37, at http://dx.doi.org/10.1016/j.rse.2005.12.003.

Schleeweis, K., Goward, S.N., Huang, C., Masek, J.G., Moisen, G., Kennedy, R.E., and Thomas, N.E., 2013, Regional dynamics of forest canopy change and underlying causal processes in the contiguous U.S: Journal of Geophysical Research G—Biogeosciences, v. 118, no. 3, p. 1035-1053, at http://dx.doi.org/10.1002/jgrg.20076.

Schneider, A., and Woodcock, C.E., 2008, Compact, dispersed, fragmented, extensive? A comparison of urban growth in twenty-five global cities using remotely sensed data, pattern metrics and census information: Urban Studies, v. 45, no. 3, p. 659-692, at http://dx.doi.org/10.1177/0042098007087340.

Schott, J., Gerace, A., Brown, S., Gartley, M., Montanaro, M., and Reuter, D.C., 2012, Simulation of image performance characteristics of the Landsat data continuity mission (LDCM) thermal infrared sensor (TIRS): Remote Sensing, v. 4, no. 8, p. 2477-2491, at http://dx.doi.org/10.3390/rs4082477.

Schott, J.R., Anderson, C.R., and Barsi, J.A., 2008, Refinement of the method for using pseudo-invariant sites for long term calibration trending of Landsat reflective bands, *in* International Geoscience and Remote Sensing Symposium, Boston, Mass., 7-11 July 2008, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. I245-I248, at http://dx.doi.org/10.1109/IGARSS.2008.4778839.

Schott, J.R., Gerace, A., and Montanaro, M., 2012, Simulation of the performance and image quality characteristics of the Landsat OLI and TIRS sensors using DIRSIG, *in* Meynart, R., Neeck, S.P., and Shimoda, H., eds., Sensors, Systems, and Next-Generation Satellites XVI, Edinburgh, UK, 24 September 2012, Proceedings of SPIE Vol. 8553: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 85330L at http://dx.doi.org/10.1117/12.971226.

Schott, J.R., Gerace, A., Raqueno, N., Ientilucci, E., Raqueno, R., and Lunsford, A.W., 2014, Chasing the TIRS ghosts—Calibrating the Landsat 8 Thermal bands, *in* Butler, J.J., Xiong, X., and Gu, X., eds., Earth Observing Systems XIX, San Diego, Calif., 18-20 August 2014, Proceedings of SPIE Vol. 9218: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 92181a, at http://dx.doi.org/10.1117/12.2063236.

Schott, J.R., Hook, S.J., Barsi, J.A., Markham, B.L., Miller, J., Padula, F.P., and Raqueno, N.G., 2012, Thermal infrared radiometric calibration of the entire Landsat 4, 5, and 7 archive (1982-2010): Remote Sensing of Environment, v. 122, p. 41-49, at http://dx.doi.org/10.1016/j.rse.2011.07.022.

Schroeder, T.A., Cohen, W.B., Song, C., Canty, M.J., and Yang, Z., 2006, Radiometric correction of multi-temporal Landsat data for characterization of early successional forest patterns in western Oregon: Remote Sensing of Environment, v. 103, no. 1, p. 16-26, at http://dx.doi.org/10.1016/j.rse.2006.03.008.

Schroeder, T.A., Cohen, W.B., and Yang, Z., 2007, Patterns of forest regrowth following clearcutting in western Oregon as determined from a Landsat time-series: Forest Ecology and Management, v. 243, no. 2-3, p. 259-273, at http://dx.doi.org/10.1016/j.foreco.2007.03.019.

Schroeder, T.A., Gray, A., Harmon, M.E., Wallin, D.O., and Cohen, W.B., 2008, Estimating live forest carbon dynamics with a Landsat-based curve-fitting approach: Journal of Applied Remote Sensing, v. 2, no. 1, citation identifier 023519, at http://dx.doi.org/10.1117/1.2937821.

Schroeder, T.A., Healey, S.P., Moisen, G.G., Frescino, T.S., Cohen, W.B., Huang, C., Kennedy, R.E., and Yang, Z., 2014, Improving estimates of forest disturbance by combining observations from Landsat time series with U.S. Forest Service Forest Inventory and Analysis data: Remote Sensing of Environment, v. 154, no. 1, p. 61-73, at http://dx.doi.org/10.1016/j.rse.2014.08.005.

Schroeder, T.A., Wulder, M.A., Healey, S.P., and Moisen, G.G., 2012, Detecting post-fire salvage logging from Landsat change maps and national fire survey data: Remote Sensing of Environment, v. 122, p. 166-174, at http://dx.doi.org/10.1016/j.rse.2011.10.031.

Schroeder, T.A., Wulder, M.A., Healey, S.P., and Moisen, G.G., 2011, Mapping wildfire and clearcut harvest disturbances in boreal forests with Landsat time series data: Remote Sensing of Environment, v. 115, no. 6, p. 1421-1433, at http://dx.doi.org/10.1016/j.rse.2011.01.022.

Schroeder, W., Csiszar, I., Giglio, L., Ellicott, E., and Justice, C., 2011, Satellite active fire product validation using high spatial resolution reference data, *in* Towards operational environmental monitoring, International Symposium on Remote Sensing of Environment—The GEOSS Era, 34th, Sydney, Australia, 10-15 April 2011, Proceedings: Tuscon, Ariz., International Center for Remote Sensing of Environment, p. 1-4, at http://www.isprs.org/proceedings/2011/ISRSE-34/.

Schull, M.A., Anderson, M.C., Houborg, R., Gitelson, A., and Kustas, W.P., 2015, Thermal-based modeling of coupled carbon, water, and energy fluxes using nominal light use efficiencies constrained by leaf chlorophyll observations: Biogeosciences, v. 12, no. 5, p. 1511-1523, at http://dx.doi.org/10.5194/bg-12-1511-2015.

Schwert, B., Rogan, J., Giner, N.M., Ogneva-Himmelberger, Y., Blanchard, S.D., and Woodcock, C., 2013, A comparison of support vector machines and manual change detection for land-cover map updating in Massachusetts, USA: Remote Sensing Letters, v. 4, no. 9, p. 882-890, at http://dx.doi.org/10.1080/2150704X.2013.809497.

Semmens, K.A., Anderson, M.C., Kustas, W.P., Gao, F., Alfieri, J.G., McKee, L., Prueger, J.H., Hain, C.R., Cammalleri, C., et al., in press, Monitoring daily evapotranspiration over two California vineyards using Landsat 8 in a multi-sensor data fusion approach: Remote Sensing of Environment, p. 0-0, at http://dx.doi.org/10.1016/j.rse.2015.10.025.

Sen, S., Zipper, C.E., Wynne, R.H., and Donovan, P.F., 2012, Identifying revegetated mines as disturbance/recovery trajectories using an interannual Landsat chronosequence:

Photogrammetric Engineering and Remote Sensing, v. 78, no. 3, p. 223-235, at http://dx.doi.org/10.14358/PERS.78.3.223.

Senf, C., Leitão, P.J., Pflugmacher, D., van der Linden, S., and Hostert, P., 2015, Mapping land cover in complex Mediterranean landscapes using Landsat—Improved classification accuracies from integrating multi-seasonal and synthetic imagery: Remote Sensing of Environment, v. 156, p. 527-536, at http://dx.doi.org/10.1016/j.rse.2014.10.018.

Senf, C., Pflugmacher, D., van der Linden, S., and Hostert, P., 2013, Mapping rubber plantations and natural forests in Xishuangbanna (Southwest China) using multi-spectral phenological metrics from MODIS time series: Remote Sensing, v. 5, no. 6, p. 2795-2812, at http://dx.doi.org/10.3390/rs5062795.

Senf, C., Pflugmacher, D., Wulder, M.A., and Hostert, P., 2015, Characterizing spectral-temporal patterns of defoliator and bark beetle disturbances using Landsat time series: Remote Sensing of Environment, v. 170, p. 166-177, at http://dx.doi.org/10.1016/j.rse.2015.09.019.

Seo, K.W., Waliser, D.E., Lee, C.K., Tian, B., Scambos, T., Kim, B.M., van Angelen, J.H., and van den Broeke, M.R., 2015, Accelerated mass loss from Greenland ice sheet—Links to atmospheric circulation in the North Atlantic: Global and Planetary Change, v. 128, p. 61-71, at http://dx.doi.org/10.1016/j.gloplacha.2015.02.006.

Seo, K.W., Wilson, C.R., Scambos, T., Kim, B.M., Waliser, D.E., Tian, B., Kim, B.H., and Eom, J., 2015, Surface mass balance contributions to acceleration of Antarctic ice mass loss during 2003-2013: Journal of Geophysical Research B—Solid Earth, v. 120, no. 5, p. 3617-3627, at http://dx.doi.org/10.1002/2014jb011755.

Sergienko, O.V., Bindschadler, R.A., Vornberger, P.L., and MacAyeal, D.R., 2008, Ice stream basal conditions from block-wise surface data inversion and simple regression models of ice stream flow—Application to Bindschadler Ice Stream: Journal of Geophysical Research F—Earth Surface, v. 113, no. 4, citation number F04010, at http://dx.doi.org/10.1029/2008JF001004.

Sergienko, O.V., MacAyeal, D.R., and Bindschadler, R.A., 2007, Causes of sudden, short-term changes in ice-stream surface elevation: Geophysical Research Letters, v. 34, no. 22, citation number L22503, at http://dx.doi.org/10.1029/2007GL031775.

Sergienko, O.V., Macayeal, D.R., and Bindschadler, R.A., 2009, Stick-slip behavior of ice streams—Modeling investigations: Annals of Glaciology, v. 50, no. 52, p. 87-94, at http://dx.doi.org/10.3189/172756409789624274.

Severinghaus, J.P., Albert, M.R., Courville, Z.R., Fahnestock, M.A., Kawamura, K., Montzka, S.A., Mühle, J., Scambos, T.A., Shields, E., et al., 2010, Deep air convection in the firn at a zero-accumulation site, central Antarctica: Earth and Planetary Science Letters, v. 293, no. 3-4, p. 359-367, at http://dx.doi.org/10.1016/j.epsl.2010.03.003.

Shah, C.A., Sheng, Y., and Smith, L.C., 2008, Automated image registration based on pseudoinvariant metrics of dynamic land-surface features: IEEE Transactions on Geoscience and Remote Sensing, v. 46, no. 11, p. 3908-3916, at http://dx.doi.org/10.1109/TGRS.2008.2000636.

Shapiro, A.C., Aguilar-Amuchastegui, N., Hostert, P., and Bastin, J.F., 2016, Using fragmentation to assess degradation of forest edges in Democratic Republic of Congo: Carbon Balance and Management, v. 11, no. 1, at http://dx.doi.org/10.1186/s13021-016-0054-9.

Sharma, C., Thenkabail, P., and Sharma, J.R., 2011, Earth observing data and methods for advancing water harvesting technologies in the semi-arid rain-fed environments of India, *in* Global Humanitarian Technology Conference, Seattle, Wash., 30 October-1 November 2011, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 189-193, at http://dx.doi/org/10.1109/GHTC.2011.68.

Sharma, V., Irmak, S., Kilic, A., Sharma, V., Gilley, J.E., Meyer, G.E., Knezevic, S.Z., and Marx, D., 2016, Quantification and mapping of surface residue cover for maize and soybean fields in south central Nebraska: Transactions of the ASABE, v. 59, no. 3, p. 925-939, at http://dx.doi.org/10.13031/trans.59.11489.

Sharma, V., Kilic, A., and Irmak, S., 2016, Impact of scale/resolution on evapotranspiration from Landsat and MODIS images: Water Resources Research, at http://dx.doi.org/10.1002/2015WR017772.

Shell, J.R., II, Brown, S.D., Devaraj, C., Messinger, D.W., Pogorzala, D., Goodenough, A., and Schott, J.R., 2009, Polarized form of the governing equation including atmospheric scattering terms, chap. 7 *Polarized form of the governing equation including atmospheric scattering terms* Schott, J.R., Fundamentals of Polarimetric Remote Sensing: Belllingham, Wash., SPIE Press, p. 107-133, at http://dx.doi.org/10.1117/3.817304.ch7.

Shell, J.R., Brown, S.D., Gartley, M.G., and Schott, J.R., 2009, Measurements and modeling of the pBRDF of materials, chap. 10 *Measurements and modeling of the pBRDF of materials* Schott, J.R., Fundamentals of Polarimetric Remote Sensing: Belllingham, Wash., SPIE Press, p. 165-189, at http://dx.doi.org/10.1117/3.817304.ch10.

Shen, D., and Sheng, Y., 2012, Area partitioning for channel network extraction using digital elevation models and remote sensing: IEEE Geoscience and Remote Sensing Letters, v. 9, no. 2, p. 194-198, at http://dx.doi.org/10.1109/LGRS.2011.2163812.

Shen, Z., Sheng, Y., Luo, J., and Xia, L., 2013, Registration of remote sensing images of large regions using lake center points as ground control points: Journal of Remote Sensing, v. 17, no. 5, p. 1118-1130, at http://dx.doi.org/10.11834/jrs.20132245.

Shen, Z., Yu, X., Sheng, Y., Li, J., and Luo, J., 2015, A fast algorithm to estimate the deepest points of lakes for regional lake registration: PLoS ONE, v. 10, no. 12, at http://dx.doi.org/10.1371/journal.pone.0144700.

Sheng, Y., 2007, Minimising algorithm-induced artefacts in true ortho-image generation—A direct method implemented in the vector domain: Photogrammetric Record, v. 22, no. 118, p. 151-163, at http://dx.doi.org/10.1111/j.1477-9730.2007.00425.x.

Sheng, Y., 2008, Modeling algorithm-induced errors in iterative mono-plotting process: Photogrammetric Engineering and Remote Sensing, v. 74, no. 12, p. 1529-1537, at http://dx.doi.org/10.14358/PERS.74.12.1529.

Sheng, Y., 2009, PaleoLakeR—A semiautomated tool for regional-scale paleolake recovery using geospatial information technologies: IEEE Geoscience and Remote Sensing Letters, v. 6, no. 4, p. 797-801, at http://dx.doi.org/10.1109/LGRS.2009.2025778.

Sheng, Y., 2008, Quantifying the size of a lidar footprint—A set of generalized equations: IEEE Geoscience and Remote Sensing Letters, v. 5, no. 3, p. 419-422, at http://dx.doi.org/10.1109/LGRS.2008.916978.

Sheng, Y., 2011, Remote sensing, chap. 13 *Remote sensing* Agnew, J., and Livingstone, D.M., The SAGE Handbook of Geographical Knowledge: London, SAGE Publications, p. 171-184, at http://dx.doi.org/10.4135/9781446201091.n14.

Sheng, Y., Shah, C.A., and Smith, L.C., 2008, Automated image registration for hydrologic change detection in the lake-rich arctic: IEEE Geoscience and Remote Sensing Letters, v. 5, no. 3, p. 414-418, at http://dx.doi.org/10.1109/LGRS.2008.916646.

Sheng, Y., Song, C., Wang, J., Lyons, E.A., Knox, B.R., Cox, J.S., and Gao, F., 2016, Representative lake water extent mapping at continental scales using multi-temporal Landsat-8 imagery: Remote Sensing of Environment, at http://dx.doi.org/10.1016/j.rse.2015.12.041.

Sheng, Y., and Yao, T., 2009, Editorial—Integrated assessments of environmental change on the Tibetan Plateau: Environmental Research Letters, v. 4, no. 4, article number 045201, at http://dx.doi.org/10.1088/1748-9326/4/4/045201.

Shepherd, A., Ivins, E.R., Geruo, A., Barletta, V.R., Bentley, M.J., Bettadpur, S., Briggs, K.H., Bromwich, D.H., Forsberg, R., et al., 2012, A reconciled estimate of ice-sheet mass balance: Science, v. 338, no. 6111, p. 1183-1189, at http://dx.doi.org/10.1126/science.1228102.

Shi, Y., Choi, S., Ni, X., Ganguly, S., Zhang, G., Duong, H.V., Lefsky, M.A., Simard, M., Saatchi, S.S., et al., 2013, Allometric scaling and resource limitations model of tree heights—Part 1. Model optimization and testing over continental USA: Remote Sensing, v. 5, no. 1, p. 284-306, at http://dx.doi.org/10.3390/rs5010284.

Shrestha, R., and Wynne, R.H., 2012, Estimating biophysical parameters of individual trees in an urban environment using small footprint discrete-return imaging Lidar: Remote Sensing, v. 4, no. 2, p. 484-508, at http://dx.doi.org/10.3390/rs4020484.

Shuai, Y., Masek, J.G., Gao, F., and Schaaf, C.B., 2011, An algorithm for the retrieval of 30-m snow-free albedo from Landsat surface reflectance and MODIS BRDF: Remote Sensing of Environment, v. 115, no. 9, p. 2204-2216, at http://dx.doi.org/10.1016/j.rse.2011.04.019.

Shuai, Y., Masek, J.G., Gao, F., Schaaf, C.B., and He, T., 2014, An approach for the long-term 30-m land surface snow-free albedo retrieval from historic Landsat surface reflectance and MODIS-based a priori anisotropy knowledge: Remote Sensing of Environment, v. 152, p. 467-479, at http://dx.doi.org/10.1016/j.rse.2014.07.009.

Shuai, Y., Schaaf, C., Zhang, X., Strahler, A., Roy, D., Morisette, J., Wang, Z., Nightingale, J., Nickeson, J., et al., 2013, Daily MODIS 500 m reflectance anisotropy direct broadcast (DB) products for monitoring vegetation phenology dynamics: International Journal of Remote Sensing, v. 34, no. 16, p. 5997-6016, at http://dx.doi.org/10.1080/01431161.2013.803169.

Shuai, Y., Schaaf, C.B., Strahler, A.H., Li, X., Gao, F., Liu, J., Wolfe, R.E., Wang, J., Zhang, X., et al., 2008, Monitoring vegetation phenology using improved MODIS products, *in* Zhou, L., Li, C.S., and Yeung, M.M., eds., Electronic Imaging and Multimedia Technology V, Beijing, China, 12-15 November 2007, Proceedings of SPIE Vol. 6833: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 68332X, at http://dx.doi.org/10.1117/12.757743.

Shuai, Y., Schaaf, C.B., Strahler, A.H., Liu, J., and Jiao, Z., 2008, Quality assessment of BRDF/albedo retrievals in MODIS operational system: Geophysical Research Letters, v. 35, no. 5, citation number L05407, at http://dx.doi.org/10.1029/2007GL032568.

Shuman, C.A., Berthier, E., and Scambos, T.A., 2011, 2001-2009 elevation and mass losses in the Larsen A and B embayments, Antarctic Peninsula: Journal of Glaciology, v. 57, no. 204, p. 737-754, at http://dx.doi.org/10.3189/002214311797409811.

Sieber, A., Kuemmerle, T., Prishchepov, A.V., Wendland, K.J., Baumann, M., Radeloff, V.C., Baskin, L.M., and Hostert, P., 2013, Landsat-based mapping of post-Soviet land-use change to assess the effectiveness of the Oksky and Mordovsky protected areas in European Russia: Remote Sensing of Environment, v. 133, p. 38-51, at http://dx.doi.org/10.1016/j.rse.2013.01.021.

Siegfried, M.R., Fricker, H.A., Roberts, M., Scambos, T.A., and Tulaczyk, S., 2014, A decade of West Antarctic subglacial lake interactions from combined ICESat and CryoSat-2 altimetry: Geophysical Research Letters, v. 41, no. 3, p. 891-898, at http://dx.doi.org/10.1002/2013GL058616.

Simons, G., Bastiaanssen, W., Ngô, L.A., Hain, C.R., Anderson, M., and Senay, G., 2016, Integrating global satellite-derived data products as a pre-analysis for hydrological modelling studies—A case study for the Red River Basin: Remote Sensing, v. 8, no. 4, at http://dx.doi.org/10.3390/rs8040279.

Sims, D.A., Rahman, A.F., Vermote, E.F., and Jiang, Z., 2011, Seasonal and inter-annual variation in view angle effects on MODIS vegetation indices at three forest sites: Remote Sensing of Environment, v. 115, no. 12, p. 3112-3120, at http://dx.doi.org/10.1016/j.rse.2011.06.018.

Sinyuk, A., Dubovik, O., Holben, B., Eck, T.F., Breon, F.M., Martonchik, J., Kahn, R., Diner, D.J., Vermote, E.F., et al., 2007, Simultaneous retrieval of aerosol and surface properties from a combination of AERONET and satellite data: Remote Sensing of Environment, v. 107, no. 1-2, p. 90-108, at http://dx.doi.org/10.1016/j.rse.2006.07.022.

Sixsmith, J., Oliver, S., and Lymburner, L., 2013, A hybrid approach to automated Landsat pixel quality, *in* International Geoscience and Remote Sensing Symposium, Melbourne, Australia, 21-26 July 2013, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 4146-4149, at http://dx.doi.org/10.1109/IGARSS.2013.6723746.

Sleeter, B.M., Sohl, T.L., Loveland, T.R., Auch, R.F., Acevedo, W., Drummond, M.A., Sayler, K.L., and Stehman, S.V., 2013, Land-cover change in the conterminous United States from 1973 to 2000: Global Environmental Change, v. 23, no. 4, p. 733-748, at http://dx.doi.org/10.1016/j.gloenvcha.2013.03.006.

Smith, A.M.S., Tinkham, W.T., Roy, D.P., Boschetti, L., Kremens, R.L., Kumar, S.S., Sparks, A.M., and Falkowski, M.J., 2013, Quantification of fuel moisture effects on biomass consumed derived from fire radiative energy retrievals: Geophysical Research Letters, v. 40, no. 23, p. 6298-6302, at http://dx.doi.org/10.1002/2013GL058232.

Smith, A.M.S., Wynne, R., and Coops, N., 2008, Remote characterization of vegetation structure and productivity—Plant to landscape scales [editorial]: Canadian Journal of Remote Sensing, v. 34, no. Suppl. 2, p. iii-vi, at http://dx.doi.org/10.5589/m08-907.

Smith, B.E., Raymond, C.F., and Scambos, T., 2006, Anisotropic texture of ice sheet surfaces: Journal of Geophysical Research F—Earth Surface, v. 111, no. 1, citation number L06405, at http://dx.doi.org/10.1029/2005JF000393.

Smith, L.C., Beilman, D.W., Kremenetski, K.V., Sheng, Y., MacDonald, G.M., Lammers, R.B., Shiklomanov, A.I., and Lapshina, E.D., 2012, Influence of permafrost on water storage in West Siberian peatlands revealed from a new database of soil properties: Permafrost and Periglacial Processes, v. 23, no. 1, p. 69-79, at http://dx.doi.org/10.1002/ppp.735.

Smith, L.C., Sheng, Y., and MacDonald, G.M., 2007, A first pan-arctic assessment of the influence of glaciation, permafrost, topography and peatlands on northern hemisphere lake distribution: Permafrost and Periglacial Processes, v. 18, no. 2, p. 201-208, at http://dx.doi.org/10.1002/ppp.581.

Smith, L.C., Sheng, Y., Magilligan, F.J., Smith, N.D., Gomez, B., Mertes, L.A.K., Krabill, W.B., and Garvin, J.B., 2006, Geomorphic impact and rapid subsequent recovery from the 1996 Skeiðarársandur jökulhlaup, Iceland, measured with multi-year airborne lidar: Geomorphology, v. 75, no. 1-2 SPEC. ISS., p. 65-75, at http://dx.doi.org/10.1016/j.geomorph.2004.01.012.

Sobrino, J.A., Franch, B., Oltra-Carrió, R., Vermote, E.F., and Fedele, E., 2013, Evaluation of the MODIS Albedo product over a heterogeneous agricultural area: International Journal of Remote Sensing, v. 34, no. 15, p. 5530-5540, at http://dx.doi.org/10.1080/01431161.2013.792968.

Sohl, T.L., Loveland, T.R., Sleeter, B.M., Sayler, K.L., and Barnes, C.A., 2010, Addressing foundational elements of regional land-use change forecasting: Landscape Ecology, v. 25, no. 2, p. 233-247, at http://dx.doi.org/10.1007/s10980-009-9391-3.

Song, C., Schroeder, T.A., and Cohen, W.B., 2007, Predicting temperate conifer forest successional stage distributions with multitemporal Landsat Thematic Mapper imagery: Remote Sensing of Environment, v. 106, no. 2, p. 228-237, at http://dx.doi.org/10.1016/j.rse.2006.08.008.

Song, C., and Sheng, Y., 2016, Contrasting evolution patterns between glacier-fed and non-glacier-fed lakes in the Tanggula Mountains and climate cause analysis: Climatic Change, v. 135, no. 3, p. 493-507, at http://dx.doi.org/10.1007/s10584-015-1578-9.

Song, C., Sheng, Y., Ke, L., Nie, Y., and Wang, J., 2016, Glacial lake evolution in the southeastern Tibetan Plateau and the cause of rapid expansion of proglacial lakes linked to glacial-hydrogeomorphic processes: Journal of Hydrology, v. 540, p. 504-514, at http://dx.doi.org/10.1016/j.jhydrol.2016.06.054.

Song, C., Ye, Q., Sheng, Y., and Gong, T., 2015, Combined ICESat and CryoSat-2 altimetry for accessing water level dynamics of Tibetan lakes over 2003-2014: Water (Switzerland), v. 7, no. 9, p. 4685-4700, at http://dx.doi.org/10.3390/w7094685.

Sonnenschein, R., Kuemmerle, T., Udelhoven, T., Stellmes, M., and Hostert, P., 2011, Differences in Landsat-based trend analyses in drylands due to the choice of vegetation estimate: Remote Sensing of Environment, v. 115, no. 6, p. 1408-1420, at http://dx.doi.org/10.1016/j.rse.2011.01.021.

Souza, E.G., Scharf, P., Sudduth, K.A., and Hipple, J.D., 2006, Using a field radiometer to estimate instantaneous sky clearness: Revista Brasileira de Engenharia Agricola e Ambiental, v. 10, no. 2, p. 369-373, at http://dx.doi.org/10.1590/S1415-43662006000200018.

Soverel, N.O., Coops, N.C., White, J.C., and Wulder, M.A., 2010, Characterizing the forest fragmentation of Canada's national parks: Environmental Monitoring and Assessment, v. 164, no. 1-4, p. 481-499, at http://dx.doi.org/10.1007/s10661-009-0908-7.

Spies, T.A., Miller, J.D., Buchanan, J.B., Lehmkuhl, J.F., Franklin, J.F., Healey, S.P., Hessburg, P.F., Safford, H.D., Cohen, W.B., et al., 2010, Underestimating risks to the northern spotted owl in fire-prone forests—Response to hanson et al: Conservation Biology, v. 24, no. 1, p. 330-333, at http://dx.doi.org/10.1111/j.1523-1739.2009.01414.x.

Stanton, T.P., Shaw, W.J., Truffer, M., Corr, H.F.J., Peters, L.E., Riverman, K.L., Bindschadler, R., Holland, D.M., and Anandakrishnan, S., 2013, Channelized ice melting in the ocean boundary layer beneath Pine Island Glacier, Antarctica: Science, v. 341, no. 6151, p. 1236-1239, at http://dx.doi.org/10.1126/science.1239373.

Stehman, S.V., Olofsson, P., Woodcock, C.E., Herold, M., and Friedl, M.A., 2012, A global land-cover validation data set, II—Augmenting a stratified sampling design to estimate accuracy by region and land-cover class: International Journal of Remote Sensing, v. 33, no. 22, p. 6975-6993, at http://dx.doi.org/10.1080/01431161.2012.695092.

Stewart, B.P., Nelson, T.A., Laberee, K., Nielsen, S.E., Wulder, M.A., and Stenhouse, G., 2013, Quantifying grizzly bear selection of natural and anthropogenic edges: Journal of Wildlife Management, v. 77, no. 5, p. 957-964, at http://dx.doi.org/10.1002/jwmg.535.

Stewart, B.P., Nelson, T.A., Wulder, M.A., Nielsen, S.E., and Stenhouse, G., 2012, Impact of disturbance characteristics and age on grizzly bear habitat selection: Applied Geography, v. 34, p. 614-625, at http://dx.doi.org/10.1016/j.apgeog.2012.03.001.

Stewart, B.P., Wulder, M.A., McDermid, G.J., and Nelson, T., 2009, Disturbance capture and attribution through the integration of Landsat and IRS-1C imagery: Canadian Journal of Remote Sensing, v. 35, no. 6, p. 523-533, at http://dx.doi.org/10.5589/m10-006.

Stibig, H.J., Belward, A.S., Roy, P.S., Rosalina-Wasrin, U., Agrawal, S., Joshi, P.K., Hildanus, Beuchle, R., Fritz, S., et al., 2007, A land-cover map for South and Southeast Asia derived from SPOT-VEGETATION data: Journal of Biogeography, v. 34, no. 4, p. 625-637, at http://dx.doi.org/10.1111/j.1365-2699.2006.01637.x.

St-Louis, V., Forester, J.D., Pelletier, D., Bélisle, M., Desrochers, A., Rayfield, B., Wulder, M.A., and Cardille, J.A., 2014, Circuit theory emphasizes the importance of edge-crossing decisions in dispersal-scale movements of a forest passerine: Landscape Ecology, v. 29, no. 5, p. 831-841, at http://dx.doi.org/10.1007/s10980-014-0019-x.

St-Louis, V., Pidgeon, A.M., Kuemmerle, T., Sonnenschein, R., Radeloff, V.C., Clayton, M.K., Locke, B.A., Bash, D., and Hostert, P., 2014, Modelling avian biodiversity using raw, unclassified satellite imagery: Philosophical Transactions of the Royal Society B—Biological Sciences, v. 369, no. 1643, p. 1471-2970, at http://dx.doi.org/10.1098/rstb.2013.0197.

Stöckli, R., Vermote, E., Saleous, N., Simmon, R., and Herring, D., 2006, True color earth data set includes seasonal dynamics: Eos, v. 87, no. 5, p. 51-53, at http://dx.doi.org/10.1029/2006EO050002.

Stone, R.S., Anderson, G.P., Shettle, E.P., Andrews, E., Loukachine, K., Dutton, E.G., Schaaf, C., and Roman Iii, M.O., 2008, Radiative impact of boreal smoke in the Arctic—Observed and modeled: Journal of Geophysical Research D—Atmospheres, v. 113, no. 14, citation number D14S16, at http://dx.doi.org/10.1029/2007JD009657.

Strahler, A.H., Jupp, D.L.B., Woodcock, C.E., Schaaf, C.B., Yao, T., Zhao, F., Yang, X., Lovell, J., Culvenor, D., et al., 2008, Retrieval of forest structural parameters using a ground-based lidar instrument (Echidna®): Canadian Journal of Remote Sensing, v. 34, no. Suppl. 2, p. S426-S440, at http://dx.doi.org/10.5589/m08-046.

Straneo, F., Heimbach, P., Sergienko, O., Hamilton, G., Catania, G., Griffies, S., Hallberg, R., Jenkins, A., Joughin, I., et al., 2013, Challenges to understanding the dynamic response of Greenland's marine terminating glaciers to oc eanic and atmospheric forcing: Bulletin of the American Meteorological Society, v. 94, no. 8, p. 1131-1144, at http://dx.doi.org/10.1175/BAMS-D-12-00100.1.

Stroeve, J., Box, J.E., Wang, Z., Schaaf, C., and Barrett, A., 2013, Re-evaluation of MODIS MCD43 greenland albedo accuracy and trends: Remote Sensing of Environment, v. 138, p. 199-214, at http://dx.doi.org/10.1016/j.rse.2013.07.023.

Stroeve, J., Holland, M.M., Meier, W., Scambos, T., and Serreze, M., 2007, Arctic sea ice decline—Faster than forecast: Geophysical Research Letters, v. 34, no. 9, citation number L09501, at http://dx.doi.org/10.1029/2007GL029703.

Stroeve, J., Serreze, M., Drobot, S., Gearheard, S., Holland, M., Maslanik, J., Meier, W., and Scambos, T., 2008, Arctic sea ice extent plummets in 2007: Eos, v. 89, no. 2, p. 13-14, at http://dx.doi.org/10.1029/2008EO020001.

Stueve, K.M., Housman, I.W., Zimmerman, P.L., Nelson, M.D., Webb, J.B., Perry, C.H., Chastain, R.A., Gormanson, D.D., Huang, C., et al., 2011, Snow-covered Landsat time series stacks improve automated disturbance mapping accuracy in forested landscapes: Remote Sensing of Environment, v. 115, no. 12, p. 3203-3219, at http://dx.doi.org/10.1016/j.rse.2011.07.005.

Subedi, S., Fox, T.R., and Wynne, R.H., 2015, Determination of fertility rating (FR) in the 3-PG model for loblolly pine plantations in the southeastern United States based on site index: Forests, v. 6, no. 9, p. 3002-3027, at http://dx.doi.org/10.3390/f6093002.

Sud, Y.C., Lee, D., Oreopoulos, L., Barahona, D., Nenes, A., and Suarez, M.J., 2013, Performance of McRAS-AC in the GEOS-5 AGCM—Aerosol-cloud-microphysics, precipitation, cloud radiative effects, and circulation: Geoscientific Model Development, v. 6, no. 1, p. 57-79, at http://dx.doi.org/10.5194/gmd-6-57-2013.

Sueki, S., Acharya, K., Huntington, J., Liebert, R., Healey, J., Jasoni, R., and Young, M., 2015, Defoliation effects of Diorhabda carinulata on tamarisk evapotranspiration and groundwater levels: Ecohydrology, v. 8, no. 8, p. 1560-1571, at http://dx.doi.org/10.1002/eco.1604.

Suess, S., van der Linden, S., Leitao, P.J., Okujeni, A., Waske, B., and Hostert, P., 2013, Import vector machines for quantitative analysis of hyperspectral data: IEEE Geoscience and Remote Sensing Letters, v. 11, no. 2, p. 449-453, at http://dx.doi.org/10.1109/LGRS.2013.2265102.

Suess, S., Van Der Linden, S., Okujeni, A., Leitão, P.J., Schwieder, M., and Hostert, P., 2015, Using class probabilities to map gradual transitions in shrub vegetation from simulated EnMAP data: Remote Sensing, v. 7, no. 8, p. 10668-10688, at http://dx.doi.org/10.3390/rs70810668.

Sulla-Menashe, D., Friedl, M.A., Krankina, O.N., Baccini, A., Woodcock, C.E., Sibley, A., Sun, G., Kharuk, V., and Elsakov, V., 2011, Hierarchical mapping of Northern Eurasian land cover using MODIS data: Remote Sensing of Environment, v. 115, no. 2, p. 392-403, at http://dx.doi.org/10.1016/j.rse.2010.09.010.

Sulla-Menashe, D., Kennedy, R.E., Yang, Z., Braaten, J., Krankina, O.N., and Friedl, M.A., 2014, Detecting forest disturbance in the Pacific Northwest from MODIS time series using temporal segmentation: Remote Sensing of Environment, v. 151, p. 114-123, at http://dx.doi.org/10.1016/j.rse.2013.07.042.

Sumnall, M., Peduzzi, A., Fox, T.R., Wynne, R.H., and Thomas, V.A., 2016, Analysis of a lidar voxel-derived vertical profile at the plot and individual tree scales for the estimation of forest canopy layer characteristics: International Journal of Remote Sensing, v. 37, no. 11, p. 2653-2681, at http://dx.doi.org/10.1080/01431161.2016.1183833.

Sumnall, M., Peduzzi, A., Fox, T.R., Wynne, R.H., Thomas, V.A., and Cook, B., 2016, Assessing the transferability of statistical predictive models for leaf area index between two airborne discrete return LiDAR sensor designs within multiple intensely managed Loblolly pine forest locations in the south-eastern USA: Remote Sensing of Environment, v. 176, p. 308-319, at http://dx.doi.org/10.1016/j.rse.2016.02.012.

Sumnall, M.J., Fox, T.R., Wynne, R.H., Blinn, C., and Thomas, V.A., 2016, Estimating leaf area index at multiple heights within the understorey component of Loblolly pine forests from airborne discrete-return lidar: International Journal of Remote Sensing, v. 37, no. 1, p. 78-99, at http://dx.doi.org/10.1080/01431161.2015.1117683.

Sun, G., Ni, W., Hall, F., Masek, J., Fatoyinbo, T., and Peddle, D., 2013, Retrieval of forest biophysical parameters using physically-based algorithms, *in* International Geoscience and Remote Sensing Symposium, Melbourne, Australia, 21-26 July 2013, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 2621-2624, at http://dx.doi/org/10.1109/IGARSS.2013.6723360.

Sundareshwar, P.V., Murtugudde, R., Srinivasan, G., Singh, S., Ramesh, K.J., Ramesh, R., Verma, S.B., Agarwal, D., Baldocchi, D., et al., 2007, Environment—Environmental monitoring network for India: Science, v. 316, no. 5822, p. 204-205, at http://dx.doi.org/10.1126/science.1137417.

Sütterlin, M., Schaaf, C.B., Stöckli, R., Sun, Q., Hüsler, F., Neuhaus, C., and Wunderle, S., 2015, Albedo and reflectance anisotropy retrieval from AVHRR operated onboard NOAA and MetOp satellites—Algorithm performance and accuracy assessment for Europe: Remote Sensing of Environment, v. 168, p. 163-176, at http://dx.doi.org/10.1016/j.rse.2015.06.023.

Sütterlin, M., Stöckli, R., Schaaf, C.B., and Wunderle, S., 2016, Albedo climatology for European land surfaces retrieved from AVHRR data (1990-2014) and its spatial and temporal analysis from green-up to vegetation senescence: Journal of Geophysical Research: Atmospheres, at http://dx.doi.org/10.1002/2016JD024933.

Svancara, L.K., Scott, J.M., Loveland, T.R., and Pidgorna, A.B., 2009, Assessing the landscape context and conversion risk of protected areas using satellite data products: Remote Sensing of Environment, v. 113, no. 7, p. 1357-1369, at http://dx.doi.org/10.1016/j.rse.2008.11.015.

Tan, B., Masek, J.G., Wolfe, R., Gao, F., Huang, C., Vermote, E.F., Sexton, J.O., and Ederer, G., 2013, Improved forest change detection with terrain illumination corrected Landsat images: Remote Sensing of Environment, v. 136, p. 469-483, at http://dx.doi.org/10.1016/j.rse.2013.05.013.

Tan, B., Morisette, J.T., Wolfe, R.E., Gao, F., Ederer, G.A., Nightingale, J., and Pedelty, J.A., 2011, An enhanced TIMESAT algorithm for estimating vegetation phenology metrics from MODIS data: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 4, no. 2, p. 361-371, at http://dx.doi.org/10.1109/JSTARS.2010.2075916.

Tan, B., Wolfe, R., Masek, J., Gao, F., and Vermote, E.F., 2010, An illumination correction algorithm on Landsat-TM data, *in* International Geoscience and Remote Sensing Symposium, Honolulu, Hawaii, 25-30 July 2010, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 1964-1967, at http://dx.doi/org/10.1109/IGARSS.2010.5653492.

Tan, B., Woodcock, C.E., Hu, J., Zhang, P., Ozdogan, M., Huang, D., Yang, W., Knyazikhin, Y., and Myneni, R.B., 2006, The impact of gridding artifacts on the local spatial properties of MODIS data—Implications for validation, compositing, and band-to-band registration across resolutions: Remote Sensing of Environment, v. 105, no. 2, p. 98-114, at http://dx.doi.org/10.1016/j.rse.2006.06.008.

Tan, P., Lymburner, L., Mueller, N., Li, F., Thankappan, M., and Lewis, A., 2013, Applying machine learning methods and time series analysis to create a National Dynamic Land Cover Dataset for Australia, *in* International Geoscience and Remote Sensing Symposium, Melbourne, Australia,

21-26 July 2013, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 4289-4292, at http://dx.doi.org/10.1109/IGARSS.2013.6723782.

Tan, P., Lymburner, L., Thankappan, M., and Lewis, A., 2011, Mapping cropping practices using MODIS time series—Harnessing the data explosion: Journal of the Indian Society of Remote Sensing, v. 39, no. 3, p. 365-372, at http://dx.doi.org/0.1007/s12524-011-0124-0.

Tan, Z., Liu, S., Li, Z., and Loveland, T.R., 2007, Simulated responses of soil organic carbon stock to tillage management scenarios in the Northwest Great Plains: Carbon Balance and Management, v. 2, no. 7, p. 1-10, at http://dx.doi.org/10.1186/1750-0680-2-7.

Tanase, M.A., Kennedy, R., and Aponte, C., 2015, Fire severity estimation from space—A comparison of active and passive sensors and their synergy for different forest types: International Journal of Wildland Fire, v. 24, no. 8, p. 1062-1075, at http://dx.doi.org/10.1071/WF15059.

Tanase, M.A., Kennedy, R., and Aponte, C., 2015, Radar Burn Ratio for fire severity estimation at canopy level—An example for temperate forests: Remote Sensing of Environment, v. 170, p. 14-31, at http://dx.doi.org/10.1016/j.rse.2015.08.025.

Tang, H., Brolly, M., Zhao, F., Strahler, A.H., Schaaf, C.L., Ganguly, S., Zhang, G., and Dubayah, R., 2014, Deriving and validating Leaf Area Index (LAI) at multiple spatial scales through lidar remote sensing—a case study in Sierra National Forest, CA: Remote Sensing of Environment, v. 143, p. 131-141, at http://dx.doi.org/10.1016/j.rse.2013.12.007.

Tang, R., Li, Z.L., Jia, Y., Li, C., Sun, X., Kustas, W.P., and Anderson, M.C., 2011, An intercomparison of three remote sensing-based energy balance models using Large Aperture Scintillometer measurements over a wheat-corn production region: Remote Sensing of Environment, v. 115, no. 12, p. 3187-3202, at http://dx.doi.org/10.1016/j.rse.2011.07.004.

Tasumi, M., and Allen, R.G., 2007, Satellite-based ET mapping to assess variation in ET with timing of crop development: Agricultural Water Management, v. 88, no. 1-3, p. 54-62, at http://dx.doi.org/10.1016/j.agwat.2006.08.010.

Tasumi, M., Allen, R.G., and Trezza, R., 2008, At-surface reflectance and albedo from satellite for operational calculation of land surface energy balance: Journal of Hydrologic Engineering, v. 13, no. 2, p. 51-63, at http://dx.doi.org/10.1061/(ASCE)1084-0699(2008)13:2(51).

Tasumi, M., Kimura, R., Moriyama, M., Allen, R.G., and Fujii, A., 2012, Estimation of global ET-Index from satellite imagery for water resources management, *in* Entekhabi, D., Honda, Y., Sawada, H., Shi, J., and Oki, T., eds., Land surface remote sensing, Kyoto, Japan, 29 October-2 November 2012, Proceedings of SPIE Vol. 8524: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 85240K, at http://dx.doi.org/10.1117/12.976283.

Thackway, R., Lymburner, L., and Guerschman, J.P., 2013, Dynamic land cover information—Bridging the gap between remote sensing and natural resource management: Ecology and Society, v. 18, no. 1, article number 2, at http://dx.doi.org/10.5751/ES-05229-180102.

Thanapura, P., Helder, D.L., Burckhard, S., Warmath, E., O'Neill, M., and Galster, D., 2007, Mapping urban land cover using quickbird NDVI and GIS spatial modeling for runoff coefficient determination: Photogrammetric Engineering and Remote Sensing, v. 73, no. 1, p. 57-65, at http://dx.doi.org/10.14358/PERS.73.1.57.

Thanapura, P., Helder, D.L., Burckhard, S., Warmath, E., O'Neill, M., and Galster, D., 2006, Mapping urban land cover using QuickBird NDVI image and GIS spatial modeling for runoff coefficient

determination, *in* Prospecting for geospatial information integration, Annual Conference, Reno, Nev., 1-5 May 2006, Proceedings: Bethesda, Md., American Society for Photogrammetry and Remote Sensing p. 1421-1432, at http://www.asprs.org/a/publications/proceedings/reno2006/0153.pdf.

Thenkabail, P., 2013, Remote Sensing best paper award 2013: Remote Sensing, v. 5, no. 2, p. 862-863, at http://dx.doi.org/10.3390/rs5020862.

Thenkabail, P., 2013, Remote sensing Best Paper award for the year 2014: Remote Sensing, v. 6, no. 1, p. 905-906, at http://dx.doi.org/10.3390/rs6010905.

Thenkabail, P.S., 2010, Global croplands and their importance for water and food security in the twenty-first century—Towards an ever green revolution that combines a second green revolution with a blue revolution: Remote Sensing, v. 2, no. 9, p. 2305-2312, at http://dx.doi.org/10.3390/rs2092305.

Thenkabail, P.S., 2012, Global croplands and their water use for food security in the twenty-first century: Photogrammetric Engineering and Remote Sensing, v. 78, no. 8, p. 797-798, at http://digital.ipcprintservices.com/publication/?i=120539&p=&l=&m=&ver=&pp=.

Thenkabail, P.S., 2013, Hyperspectral remote sensing of vegetation and agricultural crops: Photogrammetric Engineering and Remote Sensing, v. 79, no. 9, p. 784-784, at http://digital.ipcprintservices.com/publication/?i=173341&p=&l=&m=&ver=&pp=.

Thenkabail, P.S., 2011, Remote sensing open access journal—Leading a new paradigm in publishing: Remote Sensing, v. 3, no. 12, p. 2704-2706, at http://dx.doi.org/10.3390/rs3122704.

Thenkabail, P.S., Biradar, C., Noojipady, P., Islam, A., Vithanage, J., Velpuri, M., Dheeravath, V., Kulawardhana, W., Li, Y.J., et al., 2006, International Water Management Institute's Data Storehouse Pathway (IWMIDSP) a unique data and knowledge gateway of spatial data with emphasis on river basins, *in* Li, D., and Xia, L., eds., Geoinformatics 2006—GNSS and Integrated Geospatial Applications, Wuhan, China, 28-29 October 2006, Proceedings of SPIE Vol. 6418: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 64181R, at http://dx.doi/org/10.1117/12.713214.

Thenkabail, P.S., Biradar, C.M., Noojipady, P., Cai, X., Dheeravath, V., Li, Y., Velpuri, M., Gumma, M., and Pandey, S., 2007, Sub-pixel area calculation methods for estimating irrigated areas: Sensors, v. 7, no. 11, p. 2519-2538, at http://dx.doi.org/10.3390/s7112519.

Thenkabail, P.S., Biradar, C.M., Noojipady, P., Dheeravath, V., Li, Y., Velpuri, M., Gumma, M., Gangalakunta, O.R.P., Turral, H., et al., 2009, Global irrigated area map (GIAM), derived from remote sensing, for the end of the last millennium: International Journal of Remote Sensing, v. 30, no. 14, p. 3679-3733, at http://dx.doi.org/10.1080/01431160802698919.

Thenkabail, P.S., Biradar, C.M., Noojipady, P., Islam, A., Velpuri, M., Vithanage, J., Kulawardhana, W., Li, Y.J., Dheeravath, V.I., et al., 2006, The spatial data and knowledge gateways at the international Water Management Institute (IWMI), *in* Wu, H., and Zhu, Q., eds., Geoinformatics 2006—GNSS and Integrated Geospatial Applications, Wuhan, China, 28-29 October 2006, Proceedings of SPIE Vol. 6421: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 64211Z, at http://dx.doi/org/10.1117/12.713224.

Thenkabail, P.S., Dheeravath, V., Biradar, C.M., Gangalakunta, O.R.P., Noojipady, P., Gurappa, C., Velpuri, M., Gumma, M., and Li, Y., 2009, Irrigated area maps and statistics of India using remote sensing and national statistics: Remote Sensing, v. 1, no. 2, p. 50-67, at http://dx.doi.org/10.3390/rs1020050.

Thenkabail, P.S., GangadharaRao, P., Biggs, T.W., Krishna, M., and Turral, H., 2007, Spectral matching techniques to determine historical Land-use/Land-cover (LULC) and irrigated areas using time-series 0.1-degree AVHRR pathfinder datasets: Photogrammetric Engineering and Remote Sensing, v. 73, no. 9, p. 1029-1040, at http://eserv.asprs.org/PERS/2007journal/sep/2007_sep_1029-1040.pdf.

Thenkabail, P.S., Hanjra, M.A., Dheeravath, V., and Gumma, M., 2010, A holistic view of global croplands and their water use for ensuring global food security in the 21st century through advanced remote sensing and non-remote sensing approaches: Remote Sensing, v. 2, no. 1, p. 211-261, at http://dx.doi.org/10.3390/rs2010211.

Thenkabail, P.S., Knox, J.W., Ozdogan, M., Gumma, M.K., Congalton, R.G., Wu, Z., Milesi, C., Finkral, A., Marshall, M., et al., 2012, Assessing future risks to agricultural productivity, water resources and food security—How can remote sensing help?: Photogrammetric Engineering and Remote Sensing, v. 78, no. 8, p. 773-782, at http://digital.ipcprintservices.com/publication/?i=120539&p=&l=&m=&ver=&pp=.

Thenkabail, P.S., Mariotto, I., Gumma, M.K., Middleton, E.M., Landis, D.R., and Huemmrich, K.F., 2013, Selection of hyperspectral narrowbands (hnbs) and composition of hyperspectral twoband vegetation indices (HVIS) for biophysical characterization and discrimination of crop types using field reflectance and Hyperion/EO-1 data: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 6, no. 2, p. 427-439, at http://dx.doi.org/10.1109/JSTARS.2013.2252601.

Thenkabail, P.S., and Wu, Z., 2012, An automated cropland classification algorithm (ACCA) for Tajikistan by combining Landsat, MODIS, and secondary data: Remote Sensing, v. 4, no. 10, p. 2890-2918, at http://dx.doi.org/10.3390/rs4102890.

Thomas, D.C., Chatrou, L.W., Stull, G.W., Johnson, D.M., Harris, D.J., Thongpairoj, U.S., and Saunders, R.M.K., 2015, The historical origins of palaeotropical intercontinental disjunctions in the pantropical flowering plant family Annonaceae: Perspectives in Plant Ecology, Evolution and Systematics, v. 17, no. 1, p. 1-16, at http://dx.doi.org/10.1016/j.ppees.2014.11.001.

Thomas, N.E., Huang, C., Goward, S.N., Powell, S., Rishmawi, K., Schleeweis, K., and Hinds, A., 2011, Validation of North American Forest Disturbance dynamics derived from Landsat time series stacks: Remote Sensing of Environment, v. 115, no. 1, p. 19-32, at http://dx.doi.org/10.1016/j.rse.2010.07.009.

Thome, K., Czapla-Myers, J., Leisso, N., McCorkel, J., and Buchanan, J., 2008, Intercomparison of imaging sensors using automated ground measurements, *in* International Geoscience and Remote Sensing Symposium, Boston, Mass., 7-11 July 2008, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. IV1332-IV1335, at http://dx.doi.org/10.1109/IGARSS.2008.4779977.

Thome, K., Czapla-Myers, J., and McCorkel, J., 2007, Retrieval of surface BRDF for reflectance-based calibration, *in* Butler, J.J., and Xiong, J., eds., Earth Observing Systems XII, San Diego, Calif., 26–28 August 2007, Proceedings of SPIE Vol. 6677: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 66770T, at http://dx.doi.org/10.1117/12.734847.

Thome, K., McCorkel, J., and Czapla-Myers, J., 2013, In-situ transfer standard and coincident-view intercomparisons for sensor cross-calibration: IEEE Transactions on Geoscience and Remote Sensing, v. 51, no. 3, p. 1088-1097, at http://dx.doi.org/10.1109/TGRS.2013.2243841.

Thome, K., McCorkel, J., and McAndrew, B., 2015, Demonstrating the error budget for the Climate Absolute Radiance and Refractivity Observatory through solar irradiance measurements, *in* Butler, J.J., Xiong, X., and Gu, X., eds., Earth Observing Systems XX, San Diego, Calif., 9 August 2015, Proceedings of SPIE Vol. 9607: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 96071c, at http://dx.doi.org/10.1117/12.2188849.

Thompson, S.D., Nelson, T.A., White, J.C., and Wulder, M.A., 2015, Mapping dominant tree species over large forested areas using Landsat best-available-pixel image composites: Canadian Journal of Remote Sensing, v. 41, no. 3, p. 203-218, at http://dx.doi.org/10.1080/07038992.2015.1065708.

Tigges, J., Lakes, T., and Hostert, P., 2013, Urban vegetation classification—Benefits of multitemporal RapidEye satellite data: Remote Sensing of Environment, v. 136, p. 66-75, at http://dx.doi.org/10.1016/j.rse.2013.05.001.

Timmermans, W.J., Kustas, W.P., Anderson, M.C., and French, A.N., 2007, An intercomparison of the Surface Energy Balance Algorithm for Land (SEBAL) and the Two-Source Energy Balance (TSEB) modeling schemes: Remote Sensing of Environment, v. 108, no. 4, p. 369-384, at http://dx.doi.org/10.1016/j.rse.2006.11.028.

Tompalski, P., Coops, N.C., White, J.C., and Wulder, M.A., 2015, Enriching ALS-derived area-based estimates of volume through tree-level downscaling: Forests, v. 6, no. 8, p. 2608-2630, at http://dx.doi.org/10.3390/f6082608.

Tompalski, P., Coops, N.C., White, J.C., and Wulder, M.A., 2014, Simulating the impacts of error in species and height upon tree volume derived from airborne laser scanning data: Forest Ecology and Management, v. 327, p. 167-177, at http://dx.doi.org/10.1016/j.foreco.2014.05.011.

Tompalski, P., Coops, N.C., White, J.C., Wulder, M.A., and Pickell, P.D., 2015, Estimating forest site productivity using airborne laser scanning data and Landsat time series: Canadian Journal of Remote Sensing, v. 41, no. 3, p. 232-245, at http://dx.doi.org/10.1080/07038992.2015.1068686.

Torresan, C., Strunk, J., Zald, H.S.J., Zhiqiang, Y., and Cohen, W.B., 2014, Comparing statistical techniques to classify the structure of mountain forest stands using CHM-derived metrics in Trento province (Italy): European Journal of Remote Sensing, v. 47, no. 1, p. 75-94, at http://dx.doi.org/10.5721/EuJRS20144706.

Townshend, J., Latham, J., Justice, C.O., Janetos, A., Conant, R., Arino, O., Balstad, R., Belward, A., Feuquay, J., et al., 2011, International coordination of satellite land observations—Integrated observations of the land, Remote Sensing and Digital Image Processing, v. 11, p. 835-856, at http://dx.doi.org/10.1007/978-1-4419-6749-7_36.

Townshend, J.R., Masek, J.G., Huang, C., Vermote, E.F., Gao, F., Channan, S., Sexton, J.O., Feng, M., Narasimhan, R., et al., 2012, Global characterization and monitoring of forest cover using Landsat data—Opportunities and challenges: International Journal of Digital Earth, v. 5, no. 5, p. 373-397, at http://dx.doi.org/10.1080/17538947.2012.713190.

Trezza, R., Allen, R.G., Robison, C.W., Kramber, W.J., Kjaersgaard, J., Tasumi, M., and Garcia, M., 2008, Enhanced resolution of evapotranspiration from riparian systems and field edges by sharpening the Landsat thermal band, *in* Babcock, R.W., and Walton, R., eds., World Environmental and Water Resources Congress, Honolulu, Hawaii, 12-16 May 2008, Proceedings: Reston, Va., American Society of Civil Engineers, p. 1-12, at http://dx.doi.org/10.1061/40976(316)98.

Trezza, R., Allen, R.G., and Tasumi, M., 2013, Estimation of actual evapotranspiration along the Middle Rio Grande of New Mexico using MODIS and Landsat imagery with the METRIC model: Remote Sensing, v. 5, no. 10, p. 5397-5423, at http://dx.doi.org/10.3390/rs5105397.

Trigg, S., Dempewolf, J., Elgamri, M., Justice, C., and Gorsevski, V., 2012, Fire and land use change heighten tensions between pastoral nomads and mechanized farmers in Kordofan and White Nile States, Sudan: Journal of Land Use Science, v. 7, no. 3, p. 275-288, at http://dx.doi.org/10.1080/1747423X.2011.565372.

Trigg, S.N., and Roy, D.P., 2007, A focus group study of factors that promote and constrain the use of satellite-derived fire products by resource managers in southern Africa: Journal of Environmental Management, v. 82, no. 1, p. 95-110, at http://dx.doi.org/10.1016/j.jenvman.2005.12.008.

Tsui, O.W., Coops, N.C., Wulder, M.A., and Marshall, P.L., 2013, Integrating airborne LiDAR and space-borne radar via multivariate kriging to estimate above-ground biomass: Remote Sensing of Environment, v. 139, p. 340-352, at http://dx.doi.org/10.1016/j.rse.2013.08.012.

Tsui, O.W., Coops, N.C., Wulder, M.A., Marshall, P.L., and McCardle, A., 2012, Using multi-frequency radar and discrete-return LiDAR measurements to estimate above-ground biomass and biomass components in a coastal temperate forest: ISPRS Journal of Photogrammetry and Remote Sensing, v. 69, p. 121-133, at http://dx.doi.org/10.1016/j.isprsjprs.2012.02.009.

Tsvetsinskaya, E.A., Schaaf, C.B., Gao, F., Strahler, A.H., and Dickinson, R.E., 2006, Spatial and temporal variability in Moderate Resolution Imaging Spectroradiometer-derived surface albedo over global arid regions: Journal of Geophysical Research D—Atmospheres, v. 111, no. 20, citation number D20106, at http://dx.doi.org/10.1029/2005JD006772.

Tulbure, M.G., Wimberly, M.C., Roy, D.P., and Henebry, G.M., 2011, Spatial and temporal heterogeneity of agricultural fires in the central United States in relation to land cover and land use: Landscape Ecology, v. 26, no. 2, p. 211-224, at http://dx.doi.org/10.1007/s10980-010-9548-0.

Turner, D.P., Göckede, M., Law, B.E., Ritts, W.D., Cohen, W.B., Yang, Z., Hudiburg, T., Kennedy, R., and Duane, M., 2011, Multiple constraint analysis of regional land-surface carbon flux: Tellus, Series B—Chemical and Physical Meteorology, v. 63, no. 2, p. 207-221, at http://dx.doi.org/10.1111/j.1600-0889.2011.00525.x.

Turner, D.P., Jacobson, A.R., Ritts, W.D., Wang, W.L., and Nemani, R., 2013, A large proportion of north american net ecosystem production is offset by emissions from harvested products, river/stream evasion, and biomass burning: Global Change Biology, v. 19, no. 11, p. 3516-3528, at http://dx.doi.org/10.1111/gcb.12313.

Turner, D.P., Ritts, W.D., Cohen, W.B., Gower, S.T., Running, S.W., Zhao, M., Costa, M.H., Kirschbaum, A.A., Ham, J.M., et al., 2006, Evaluation of MODIS NPP and GPP products across multiple biomes: Remote Sensing of Environment, v. 102, no. 3-4, p. 282-292, at http://dx.doi.org/10.1016/j.rse.2006.02.017.

Turner, D.P., Ritts, W.D., Kennedy, R.E., Gray, A.N., and Yang, Z., 2015, Effects of harvest, fire, and pest/pathogen disturbances on the West Cascades ecoregion carbon balance: Carbon Balance and Management, v. 10, p. 12, at http://dx.doi.org/10.1186/s13021-015-0022-9.

Turner, D.P., Ritts, W.D., Kennedy, R.E., Gray, A.N., and Yang, Z., 2016, Regional carbon cycle responses to 25 years of variation in climate and disturbance in the US Pacific Northwest: Regional Environmental Change, p. 1-11, at http://dx.doi.org/10.1007/s10113-016-0956-9.

Turner, D.P., Ritts, W.D., Law, B.E., Cohen, W.B., Yang, Z., Hudiburg, T., Campbell, J.L., and Duane, M., 2007, Scaling net ecosystem production and net biome production over a heterogeneous region in the western United States: Biogeosciences, v. 4, no. 4, p. 597-612, at http://dx.doi.org/10.5194/bg-4-597-2007.

Turner, D.P., Ritts, W.D., Styles, J.M., Yang, Z., Cohen, W.B., Law, B.E., and Thornton, P.E., 2006, A diagnostic carbon flux model to monitor the effects of disturbance and interannual variation in climate on regional NEP: Tellus, Series B—Chemical and Physical Meteorology, v. 58, no. 5, p. 476-490, at http://dx.doi.org/10.1111/j.1600-0889.2006.00221.x.

Turner, D.P., Ritts, W.D., Yang, Z., Kennedy, R.E., Cohen, W.B., Duane, M.V., Thornton, P.E., and Law, B.E., 2011, Decadal trends in net ecosystem production and net ecosystem carbon balance for a regional socioecological system: Forest Ecology and Management, v. 262, no. 7, p. 1318-1325, at http://dx.doi.org/10.1016/j.foreco.2011.06.034.

Turner, J., Barrand, N.E., Bracegirdle, T.J., Convey, P., Hodgson, D.A., Jarvis, M., Jenkins, A., Marshall, G., Meredith, M.P., et al., 2014, Antarctic climate change and the environment—An update: Polar Record, v. 50, no. 3, p. 237-259, at http://dx.doi.org/10.1017/S0032247413000296.

Vadrevu, K.P., Csiszar, I., Ellicott, E., Giglio, L., Badarinath, K.V.S., Vermote, E., and Justice, C., 2012, Hotspot analysis of vegetation fires and intensity in the Indian region: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 6, no. 1, p. 224-238, at http://dx.doi.org/10.1109/JSTARS.2012.2210699.

Vadrevu, K.P., Ellicott, E., Badarinath, K.V.S., and Vermote, E., 2011, MODIS derived fire characteristics and aerosol optical depth variations during the agricultural residue burning season, north India: Environmental Pollution, v. 159, no. 6, p. 1560-1569, at http://dx.doi.org/10.1016/j.envpol.2011.03.001.

Vadrevu, K.P., Ellicott, E., Giglio, L., Badarinath, K.V.S., Vermote, E., Justice, C., and Lau, W.K.M., 2012, Vegetation fires in the Himalayan region—Aerosol load, black carbon emissions and smoke plume heights: Atmospheric Environment, v. 47, p. 241-251, at http://dx.doi.org/10.1016/j.atmosenv.2011.11.009.

Vadrevu, K.P., Giglio, L., and Justice, C., 2013, Satellite based analysis of fire-carbon monoxide relationships from forest and agricultural residue burning (2003-2011): Atmospheric Environment, v. 64, p. 179-191, at http://dx.doi.org/10.1016/j.atmosenv.2012.09.055.

van Aardt, J.A.N., and Wynne, R.H., 2007, Examining pine spectral separability using hyperspectral data from an airborne sensor—An extension of field-based results: International Journal of Remote Sensing, v. 28, no. 2, p. 431-436, at http://dx.doi.org/10.1080/01431160500444772.

Van Aardt, J.A.N., Wynne, R.H., and Oderwald, R.G., 2006, Forest volume and biomass estimation using small-footprint lidar-distributional parameters on a per-segment basis: Forest Science, v. 52, no. 6, p. 636-649, at http://www.ingentaconnect.com/content/saf/fs/2006/00000052/00000006/art00003.

Van Aardt, J.A.N., Wynne, R.H., and Scrivani, J.A., 2008, Lidar-based mapping of forest volume and biomass by taxonomic group using structurally homogenous segments: Photogrammetric Engineering and Remote Sensing, v. 74, no. 8, p. 1033-1044, at http://dx.doi.org/10.14358/PERS.74.8.1033.

van der Linden, S., and Hostert, P., 2009, The influence of urban structures on impervious surface maps from airborne hyperspectral data: Remote Sensing of Environment, v. 113, no. 11, p. 2298-2305, at http://dx.doi.org/10.1016/j.rse.2009.06.004.

Van Der Linden, S., Janz, A., Waske, B., Eiden, M., and Hostert, P., 2007, Classifying segmented hyperspectral data from a heterogeneous urban environment using support vector machines: Journal of Applied Remote Sensing, v. 1, no. 1, citation identifier 013543, at http://dx.doi.org/10.1117/1.2813466.

Van Leeuwen, M., Coops, N.C., Hilker, T., Wulder, M.A., Newnham, G.J., and Culvenor, D.S., 2013, Automated reconstruction of tree and canopy structure for modeling the internal canopy radiation regime: Remote Sensing of Environment, v. 136, p. 286-300, at http://dx.doi.org/10.1016/j.rse.2013.04.019.

Van Leeuwen, M., Coops, N.C., and Wulder, M.A., 2010, Canopy surface reconstruction from a LiDAR point cloud using Hough transform: Remote Sensing Letters, v. 1, no. 3, p. 125-132, at http://dx.doi.org/10.1080/01431161003649339.

Van Leeuwen, M., Hilker, T., Coops, N.C., Frazer, G., Wulder, M.A., Newnham, G.J., and Culvenor, D.S., 2011, Assessment of standing wood and fiber quality using ground and airborne laser scanning—A review: Forest Ecology and Management, v. 261, no. 9, p. 1467-1478, at http://dx.doi.org/10.1016/j.foreco.2011.01.032.

Van Wessem, J.M., Ligtenberg, S.R.M., Reijmer, C.H., Van De Berg, W.J., Van Den Broeke, M.R., Barrand, N.E., Thomas, E.R., Turner, J., Wuite, J., et al., 2016, The modelled surface mass balance of the Antarctic Peninsula at 5.5¯km horizontal resolution: Cryosphere, v. 10, no. 1, p. 271-285, at http://dx.doi.org/10.5194/tc-10-271-2016.

Vanderhoof, M., Williams, C.A., Shuai, Y., Jarvis, D., Kulakowski, D., and Masek, J., 2014, Albedo-induced radiative forcing from mountain pine beetle outbreaks in forests, south-central Rocky Mountains—Magnitude, persistence, and relation to outbreak severity: Biogeosciences, v. 11, no. 3, p. 563-575, at http://dx.doi.org/10.5194/bg-11-563-2014.

Vartanian, M., Nijland, W., Coops, N.C., Bater, C., Wulder, M.A., and Stenhouse, G., 2014, Assessing the impact of field of view on monitoring understory and overstory phenology using digital repeat photography: Canadian Journal of Remote Sensing, v. 40, no. 2, p. 85-91, at http://dx.doi.org/10.1080/07038992.2014.930308.

Vasilkov, A.P., Joiner, J., Oreopoulos, L., Gleason, J.F., Veefkind, P., Bucsela, E., Celarier, E.A., Spurr, R.J.D., and Platnick, S., 2009, Impact of tropospheric nitrogen dioxide on the regional radiation budget: Atmospheric Chemistry and Physics, v. 9, no. 17, p. 6389-6400, at http://dx.doi.org/10.5194/acp-9-6389-2009.

Vastaranta, M., Kantola, T., Lyytikäinen-Saarenmaa, P., Holopainen, M., Kankare, V., Wulder, M.A., Hyyppä, J., and Hyyppä, H., 2013, Area-based mapping of defoliation of scots pine stands using airborne scanning LiDAR: Remote Sensing, v. 5, no. 3, p. 1220-1234, at http://dx.doi.org/10.3390/rs5031220.

Vastaranta, M., Niemi, M., Wulder, M.A., White, J.C., Nurminen, K., Litkey, P., Honkavaara, E., Holopainen, M., and Hyyppä, J., 2016, Forest stand age classification using time series of photogrammetrically derived digital surface models: Scandinavian Journal of Forest Research, v. 31, no. 2, p. 194-205, at http://dx.doi.org/10.1080/02827581.2015.1060256.

Vastaranta, M., Wulder, M.A., White, J.C., Pekkarinen, A., Tuominen, S., Ginzler, C., Kankare, V., Holopainen, M., Hyyppä, J., et al., 2013, Airborne laser scanning and digital stereo imagery measures of forest structure—Comparative results and implications to forest mapping and

inventory update: Canadian Journal of Remote Sensing, v. 39, no. 5, p. 382-395, at http://dx.doi.org/10.5589/m13-046.

Vaughan, D.G., Corr, H.F.J., Bindschadler, R.A., Dutrieux, P., Gudmundsson, G.H., Jenkins, A., Newman, T., Vornberger, P., and Wingham, D.J., 2012, Subglacial melt channels and fracture in the floating part of Pine Island Glacier, Antarctica: Journal of Geophysical Research F—Earth Surface, v. 117, no. 3, citation number F03012, at http://dx.doi.org/10.1029/2012JF002360.

Velpuri, N.M., Thenkabail, P.S., Gumma, M.K., Biradar, C., Dheeravath, V., Noojipady, P., and Yuanjie, L., 2009, Influence of resolution in irrigated area mapping and area estimation: Photogrammetric Engineering and Remote Sensing, v. 75, no. 12, p. 1383-1395, at http://dx.doi.org/10.14358/PERS.75.12.1383.

Venkatesan, M.I., Merino, O., Baek, J., Northrup, T., Sheng, Y., and Shisko, J., 2010, Trace organic contaminants and their sources in surface sediments of Santa Monica Bay, California, USA: Marine Environmental Research, v. 69, no. 5, p. 350-362, at http://dx.doi.org/10.1016/j.marenvres.2009.12.010.

Verburg, P.H., Crossman, N., Ellis, E.C., Heinimann, A., Hostert, P., Mertz, O., Nagendra, H., Sikor, T., Erb, K.H., et al., 2015, Land system science and sustainable development of the earth system—A global land project perspective: Anthropocene, v. 12, p. 29-41, at http://dx.doi.org/10.1016/j.ancene.2015.09.004.

Verger, A., Baret, F., Weiss, M., Kandasamy, S., and Vermote, E., 2013, The CACAO method for smoothing, gap filling, and characterizing seasonal anomalies in satellite time series: IEEE Transactions on Geoscience and Remote Sensing, v. 51, no. 4, p. 1963-1972, at http://dx.doi.org/10.1109/TGRS.2012.2228653.

Vermote, E., Ellicott, E., Dubovik, O., Lapyonok, T., Chin, M., Giglio, L., and Roberts, G.J., 2009, An approach to estimate global biomass burning emissions of organic and black carbon from MODIS fire radiative power: Journal of Geophysical Research D—Atmospheres, v. 114, no. 18, citation number D18205, at http://dx.doi.org/10.1029/2008JD011188.

Vermote, E., Justice, C., Claverie, M., and Franch, B., 2016, Preliminary analysis of the performance of the Landsat 8/OLI land surface reflectance product: Remote Sensing of Environment, at http://dx.doi.org/10.1016/j.rse.2016.04.008.

Vermote, E., Justice, C., and Csiszar, I., 2014, Early evaluation of the VIIRS calibration, cloud mask and surface reflectance Earth data records: Remote Sensing of Environment, v. 148, p. 134-145, at http://dx.doi.org/10.1016/j.rse.2014.03.028.

Vermote, E., Justice, C.O., and Bréon, F.M., 2009, Towards a generalized approach for correction of the BRDF effect in MODIS directional reflectances: IEEE Transactions on Geoscience and Remote Sensing, v. 47, no. 3, p. 898-908, at http://dx.doi.org/10.1109/TGRS.2008.2005977.

Vermote, E., and Kotchenova, S., 2011, MODIS directional surface reflectance product—Method, error estimates and validation, Remote Sensing and Digital Image Processing, v. 11, p. 533-547, at http://dx.doi.org/10.1007/978-1-4419-6749-7_23.

Vermote, E.F., and Kotchenova, S., 2008, Atmospheric correction for the monitoring of land surfaces: Journal of Geophysical Research D—Atmospheres, v. 113, no. 23, citation number D23S90, at http://dx.doi.org/10.1029/2007JD009662.

Vermote, E.F., Roger, J.C., Sinyuk, A., Saleous, N., and Dubovik, O., 2007, Fusion of MODIS-MISR aerosol inversion for estimation of aerosol absorption: Remote Sensing of Environment, v. 107, no. 1-2, p. 81-89, at http://dx.doi.org/10.1016/j.rse.2006.09.025.

Vermote, E.F., and Saleous, N., 2006, Operational atmospheric correction of MODIS visible to middle infrared land surface data in the case of an infinite Lambertian target, *in* Qu, J.J., Gao, W., Kafatos, M., Murphy, R.E., and Salomonson, V.V., eds., Earth science satellite remote sensing—science and instruments: Berlin, Germany, Springer, p. 123-153, at http://dx.doi.org/10.1007/978-3-540-37293-6_8.

Vermote, E.F., and Saleous, N.Z., 2006, Calibration of NOAA16 AVHRR over a desert site using MODIS data: Remote Sensing of Environment, v. 105, no. 3, p. 214-220, at http://dx.doi.org/10.1016/j.rse.2006.06.015.

Viana, H., Aranha, J., Lopes, D., and Cohen, W.B., 2012, Estimation of crown biomass of Pinus pinaster stands and shrubland above-ground biomass using forest inventory data, remotely sensed imagery and spatial prediction models: Ecological Modelling, v. 226, p. 22-35, at http://dx.doi.org/10.1016/j.ecolmodel.2011.11.027.

Viana, H., Cohen, W.B., Lopes, D., and Aranha, J., 2010, Assessment of forest biomass for use as energy. GIS-based analysis of geographical availability and locations of wood-fired power plants in Portugal: Applied Energy, v. 87, no. 8, p. 2551-2560, at http://dx.doi.org/10.1016/j.apenergy.2010.02.007.

Vogeler, J.C., and Cohen, W.B., 2016, A review of the role of active remote sensing and data fusion for characterizing forest in wildlife habitat models: Revista de Teledeteccion, v. 2016, no. 45, p. 1-14, at http://dx.doi.org/10.4995/raet.2016.3981.

Vogeler, J.C., Yang, Z., and Cohen, W.B., 2016, Mapping post-fire habitat characteristics through the fusion of remote sensing tools: Remote Sensing of Environment, v. 173, p. 294-303, at http://dx.doi.org/10.1016/j.rse.2015.08.011.

Vogelmann, J.E., Gallant, A.L., Shi, H., and Zhu, Z., 2016, Perspectives on monitoring gradual change across the continuity of Landsat sensors using time-series data: Remote Sensing of Environment, at http://dx.doi.org/10.1016/j.rse.2016.02.060.

Vogelmann, J.E., Kost, J.R., Tolk, B., Howard, S., Short, K., Chen, X., Huang, C., Pabst, K., and Rollins, M.G., 2011, Monitoring landscape change for LANDFIRE using multi-temporal satellite imagery and ancillary data: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 4, no. 2, p. 252-264, at http://dx.doi.org/10.1109/JSTARS.2010.2044478.

Vogelmann, J.E., Tolk, B., and Zhu, Z., 2009, Monitoring forest changes in the southwestern United States using multitemporal Landsat data: Remote Sensing of Environment, v. 113, no. 8, p. 1739-1748, at http://dx.doi.org/10.1016/j.rse.2009.04.014.

Vogelmann, J.E., Xian, G., Homer, C., and Tolk, B., 2012, Monitoring gradual ecosystem change using Landsat time series analyses—Case studies in selected forest and rangeland ecosystems: Remote Sensing of Environment, v. 122, p. 92-105, at http://dx.doi.org/10.1016/j.rse.2011.06.027.

Volk, M., Hirschfeld, J., Schmidt, G., Bohn, C., Dehnhardt, A., Liersch, S., and Lymburner, L., 2007, A SDSS-based ecological-economic modelling approach for integrated river basin management on different scale levels—The project FLUMAGIS: Water Resources Management, v. 21, no. 12, p. 2049-2061, at http://dx.doi.org/10.1007/s11269-007-9158-z.

Walker, J.J., de Beurs, K.M., and Wynne, R.H., 2014, Dryland vegetation phenology across an elevation gradient in Arizona, USA, investigated with fused MODIS and Landsat data: Remote Sensing of Environment, v. 144, p. 85-97, at http://dx.doi.org/10.1016/j.rse.2014.01.007.

Walker, J.J., De Beurs, K.M., Wynne, R.H., and Gao, F., 2012, Evaluation of Landsat and MODIS data fusion products for analysis of dryland forest phenology: Remote Sensing of Environment, v. 117, p. 381-393, at http://dx.doi.org/10.1016/j.rse.2011.10.014.

Wang, D., Liang, S., He, T., Yu, Y., Schaaf, C., and Wang, Z., 2015, Estimating daily mean land surface albedo from MODIS data: Journal of Geophysical Research D—Atmospheres, v. 120, no. 10, p. 4825-4841, at http://dx.doi.org/10.1002/2015JD023178.

Wang, D., Morton, D., Masek, J., Wu, A., Nagol, J., Xiong, X., Levy, R., Vermote, E., and Wolfe, R., 2012, Impact of sensor degradation on the MODIS NDVI time series: Remote Sensing of Environment, v. 119, p. 55-61, at http://dx.doi.org/10.1016/j.rse.2011.12.001.

Wang, J., Sheng, Y., Gleason, C.J., and Wada, Y., 2013, Downstream Yangtze River levels impacted by Three Gorges Dam: Environmental Research Letters, v. 8, no. 4, article number 044012, at http://dx.doi.org/10.1088/1748-9326/8/4/044012.

Wang, J., Sheng, Y., Hinkel, K.M., and Lyons, E.A., 2012, Drained thaw lake basin recovery on the western Arctic Coastal Plain of Alaska using high-resolution digital elevation models and remote sensing imagery: Remote Sensing of Environment, v. 119, p. 325-336, at http://dx.doi.org/10.1016/j.rse.2011.10.027.

Wang, J., Sheng, Y., and Tong, T.S.D., 2014, Monitoring decadal lake dynamics across the Yangtze Basin downstream of Three Gorges Dam: Remote Sensing of Environment, v. 152, p. 251-269, at http://dx.doi.org/10.1016/j.rse.2014.06.004.

Wang, K., Liang, S., Schaaf, C.L., and Strahler, A.H., 2010, Evaluation of Moderate Resolution Imaging Spectroradiometer land surface visible and shortwave albedo products at FLUXNET sites: Journal of Geophysical Research D—Atmospheres, v. 115, no. 17, citation number D17107, at http://dx.doi.org/10.1029/2009JD013101.

Wang, P., Gao, F., and Masek, J.G., 2014, Operational data fusion framework for building frequent Landsat-like imagery: IEEE Transactions on Geoscience and Remote Sensing, v. 52, no. 11, p. 7353-7365, at http://dx.doi.org/10.1109/TGRS.2014.2311445.

Wang, W., Ciais, P., Nemani, R.R., Canadell, J.G., Piao, S., Sitch, S., White, M.A., Hashimoto, H., Milesi, C., et al., 2013, Erratum—Variations in atmospheric CO2 growth rates coupled with tropical temperature (Proceedings of the National Academy of Sciences of the United States of America (2013) 110, 32 (13061-13066) DOI:10.1073/pnas.1219683110): Proceedings of the National Academy of Sciences of the United States of America, v. 110, no. 37, p. 15163-15163, at http://dx.doi.org/10.1073/pnas.1314920110.

Wang, W., Ciais, P., Nemani, R.R., Canadell, J.G., Piao, S., Sitch, S., White, M.A., Hashimoto, H., Milesi, C., et al., 2013, Variations in atmospheric CO2 growth rates coupled with tropical temperature: Proceedings of the National Academy of Sciences of the United States of America, v. 110, no. 32, p. 13061-13066, at http://dx.doi.org/10.1073/pnas.1219683110.

Wang, W., Dungan, J., Hashimoto, H., Michaelis, A.R., Milesi, C., Ichii, K., and Nemani, R.R., 2011, Diagnosing and assessing uncertainties of terrestrial ecosystem models in a multimodel ensemble experiment—1. Primary production: Global Change Biology, v. 17, no. 3, p. 1350-1366, at http://dx.doi.org/10.1111/j.1365-2486.2010.02309.x.

Wang, W., Dungan, J., Hashimoto, H., Michaelis, A.R., Milesi, C., Ichii, K., and Nemani, R.R., 2011, Diagnosing and assessing uncertainties of terrestrial ecosystem models in a multimodel ensemble experiment—2. Carbon balance: Global Change Biology, v. 17, no. 3, p. 1367-1378, at http://dx.doi.org/10.1111/j.1365-2486.2010.02315.x.

Wang, W., Ichii, K., Hashimoto, H., Michaelis, A.R., Thornton, P.E., Law, B.E., and Nemani, R.R., 2009, A hierarchical analysis of terrestrial ecosystem model Biome-BGC—Equilibrium analysis and model calibration: Ecological Modelling, v. 220, no. 17, p. 2009-2023, at http://dx.doi.org/10.1016/j.ecolmodel.2009.04.051.

Wang, Y., Lyapustin, A.I., Privette, J.L., Cook, R.B., SanthanaVannan, S.K., Vermote, E.F., and Schaaf, C.L., 2010, Assessment of biases in MODIS surface reflectance due to Lambertian approximation: Remote Sensing of Environment, v. 114, no. 11, p. 2791-2801, at http://dx.doi.org/10.1016/j.rse.2010.06.013.

Wang, Y., Nemani, R., Dieffenbach, F., Stolte, K., Holcomb, G., Robinson, M., Reese, C.C., McNiff, M., Duhaime, R., et al., 2010, Development of a decision support system for monitoring, reporting and forecasting ecological conditions of the Appalachian Trail, *in* International Geoscience and Remote Sensing Symposium, Honolulu, Hawaii, 25-30 July 2010, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 2095-2098, at http://dx.doi/org/10.1109/IGARSS.2010.5651835.

Wang, Z., Erb, A.M., Schaaf, C.B., Sun, Q., Liu, Y., Yang, Y., Shuai, Y., Casey, K.A., and Román, M.O., 2016, Early spring post-fire snow albedo dynamics in high latitude boreal forests using Landsat-8 OLI data: Remote Sensing of Environment, at http://dx.doi.org/10.1016/j.rse.2016.02.059.

Wang, Z., Schaaf, C.B., Chopping, M.J., Strahler, A.H., Wang, J., Román, M.O., Rocha, A.V., Woodcock, C.E., and Shuai, Y., 2012, Evaluation of Moderate-Resolution Imaging Spectroradiometer (MODIS) snow albedo product (MCD43A) over tundra: Remote Sensing of Environment, v. 117, p. 264-280, at http://dx.doi.org/10.1016/j.rse.2011.10.002.

Wang, Z., Schaaf, C.B., Lewis, P., Knyazikhin, Y., Schull, M.A., Strahler, A.H., Yao, T., Myneni, R.B., Chopping, M.J., et al., 2011, Retrieval of canopy height using moderate-resolution imaging spectroradiometer (MODIS) data: Remote Sensing of Environment, v. 115, no. 6, p. 1595-1601, at http://dx.doi.org/10.1016/j.rse.2011.02.010.

Wang, Z., Schaaf, C.B., Strahler, A.H., Chopping, M.J., Román, M.O., Shuai, Y., Woodcock, C.E., Hollinger, D.Y., and Fitzjarrald, D.R., 2014, Evaluation of MODIS albedo product (MCD43A) over grassland, agriculture and forest surface types during dormant and snow-covered periods: Remote Sensing of Environment, v. 140, p. 60-77, at http://dx.doi.org/10.1016/j.rse.2013.08.025.

Ward, J.T., Lach, S.R., Schott, J.R., Sanders, N.J., and Brown, S.D., 2008, Driving realistic texture in simulated long-wave infrared imagery, *in* Geoscience and Remote Sensing Symposium, Boston, Mass., 7-11 July 2008, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. III728-III731, at http://dx.doi.org/10.1109/IGARSS.2008.4779451.

Wasiak, F., Ochs, W., Johns, A., Seaton, B., Adams, C., Fatig, C., Jones, R., and Jackson, W., 2012, The building blocks for JWST I&T to operations—From simulator to flight units, *in* Peck, A.B., Seaman, R.L., and Comeron, F., eds., Observatory operations—Strategies, Processes, and Systems IV, Amsterdam, Netherlands, 4-6 July 2012, Proceedings of SPIE Vol. 8448: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 844803, at http://dx.doi/org/10.1117/12.921818.

Waske, B., Van Der Linden, S., Benediktsson, J.A., Rabe, A., and Hostert, P., 2009, Impact of different morphological profiles on the classification accuracy of urban hyperspectral data, *in* Evolution in remote sensing, First Workshop on Hyperspectral Image and Signal Processing, Grenoble, France, 26-28 August 2009, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), article number 1593142, at http://dx.doi.org/10.1109/WHISPERS.2009.5289078.

Waske, B., Van Der Linden, S., Benediktsson, J.A., Rabe, A., and Hostert, P., 2010, Sensitivity of support vector machines to random feature selection in classification of hyperspectral data: IEEE Transactions on Geoscience and Remote Sensing, v. 48, no. 7, p. 2880-2889, at http://dx.doi.org/10.1109/TGRS.2010.2041784.

Waske, B., van der Linden, S., Oldenburg, C., Jakimow, B., Rabe, A., and Hostert, P., 2012, ImageRF—A user-oriented implementation for remote sensing image analysis with Random Forests: Environmental Modelling and Software, v. 35, p. 192-193, at http://dx.doi.org/10.1016/j.envsoft.2012.01.014.

Wehrden, H.V., Fischer, J., Brandt, P., Wagner, V., Kümmerer, K., Kuemmerle, T., Nagel, A., Olsson, O., and Hostert, P., 2012, Consequences of nuclear accidents for biodiversity and ecosystem services: Conservation Letters, v. 5, no. 2, p. 81-89, at http://dx.doi.org/10.1111/j.1755-263X.2011.00217.x.

Welles, J.M., and Anderson, M.C., 2009, Historical overview of John M. Norman's involvement in the development of several key instruments for biophysical measurement: Agricultural and Forest Meteorology, v. 149, no. 12, p. 2064-2070, at http://dx.doi.org/10.1016/j.agrformet.2009.05.013.

Wen, G., Cahalan, R.F., Haigh, J.D., Pilewskie, P., Oreopoulos, L., and Harder, J.W., 2013, Reconciliation of modeled climate responses to spectral solar forcing: Journal of Geophysical Research D—Atmospheres, v. 118, no. 12, p. 6281-6289, at http://dx.doi.org/10.1002/jgrd.50506.

Weng, Q., Fu, P., and Gao, F., 2014, Generating daily land surface temperature at Landsat resolution by fusing Landsat and MODIS data: Remote Sensing of Environment, v. 145, p. 55-67, at http://dx.doi.org/10.1016/j.rse.2014.02.003.

West, J.E., Messinger, D.W., and Schott, J.R., 2007, Comparative evaluation of background characterization techniques for hyperspectral unstructured matched filter target detection: Journal of Applied Remote Sensing, v. 1, no. 1, citation identifier 013520, at http://dx.doi.org/10.1117/1.2768621.

Whitcraft, A.K., Becker-Reshef, I., and Justice, C.O., 2015, Agricultural growing season calendars derived from MODIS surface reflectance: International Journal of Digital Earth, v. 8, no. 3, p. 173-197, at http://dx.doi.org/10.1080/17538947.2014.894147.

Whitcraft, A.K., Vermote, E.F., Becker-Reshef, I., and Justice, C.O., 2015, Cloud cover throughout the agricultural growing season—Impacts on passive optical earth observations: Remote Sensing of Environment, v. 156, p. 438-447, at http://dx.doi.org/10.1016/j.rse.2014.10.009.

White, C.F.H., Coops, N.C., Nijland, W., Hilker, T., Nelson, T.A., Wulder, M.A., Nielsen, S.E., and Stenhouse, G., 2014, Characterizing a decade of disturbance events using Landsat and MODIS satellite imagery in Western Alberta, Canada for grizzly bear management: Canadian Journal of Remote Sensing, v. 40, no. 5, p. 336-347, at http://dx.doi.org/10.1080/07038992.2014.987082.

White, J.C., Arnett, J.T., Wulder, M.A., Tompalski, P., and Coops, N.C., 2015, Evaluating the impact of leaf-on and leaf-off airborne laserscanning data on the estimation of forest inventory attributes

with the area-based approach: Canadian Journal of Forest Research, v. 45, no. 11, p. 1498-1513, at http://dx.doi.org/10.1139/cjfr-2015-0192.

White, J.C., Coops, N.C., Hilker, T., Wulder, M.A., and Carroll, A.L., 2007, Detecting mountain pine beetle red attack damage with EO-1 Hyperion moisture indices: International Journal of Remote Sensing, v. 28, no. 10, p. 2111-2121, at http://dx.doi.org/10.1080/01431160600944028.

White, J.C., Coops, N.C., Wulder, M.A., Vastaranta, M., Hilker, T., and Tompalski, P., 2016, Remote sensing technologies for enhancing forest inventories—A review: Canadian Journal of Remote Sensing, p. 1-23, at http://dx.doi.org/10.1080/07038992.2016.1207484.

White, J.C., Gómez, C., Wulder, M.A., and Coops, N.C., 2010, Characterizing temperate forest structural and spectral diversity with Hyperion EO-1 data: Remote Sensing of Environment, v. 114, no. 7, p. 1576-1589, at http://dx.doi.org/10.1016/j.rse.2010.02.012.

White, J.C., Stepper, C., Tompalski, P., Coops, N.C., and Wulder, M.A., 2015, Comparing ALS and image-based point cloud metrics and modelled forest inventory attributes in a complex coastal forest environment: Forests, v. 6, no. 10, p. 3704-3732, at http://dx.doi.org/10.3390/f6103704.

White, J.C., and Wulder, M.A., 2014, The Landsat observation record of Canada—1972 2012: Canadian Journal of Remote Sensing, v. 39, no. 6, p. 455-467, at http://dx.doi.org/10.5589/m13-053.

White, J.C., Wulder, M.A., and Buckmaster, G., 2014, Validating estimates of merchantable volume from airborne laser scanning (ALS) data using weight scale data: Forestry Chronicle, v. 90, no. 3, p. 378-385, at http://dx.doi.org/10.5558/tfc2014072.

White, J.C., Wulder, M.A., Gómez, C., and Stenhouse, G., 2011, A history of habitat dynamics—Characterizing 35 years of stand replacing disturbance: Canadian Journal of Remote Sensing, v. 37, no. 2, p. 234-251, at http://dx.doi.org/10.5589/m11-034.

White, J.C., Wulder, M.A., Vastaranta, M., Coops, N.C., Pitt, D., and Woods, M., 2013, The utility of image-based point clouds for forest inventory—A comparison with airborne laser scanning: Forests, v. 4, no. 3, p. 518-536, at http://dx.doi.org/10.3390/f4030518.

White, M.A., de Beurs, K.M., Didan, K., Inouye, D.W., Richardson, A.D., Jensen, O.P., O'Keefe, J., Zhang, G., Nemani, R.R., et al., 2009, Intercomparison, interpretation, and assessment of spring phenology in North America estimated from remote sensing for 1982-2006: Global Change Biology, v. 15, no. 10, p. 2335-2359, at http://dx.doi.org/10.1111/j.1365-2486.2009.01910.x.

White, M.A., and Nemani, R.R., 2006, Real-time monitoring and short-term forecasting of land surface phenology: Remote Sensing of Environment, v. 104, no. 1, p. 43-49, at http://dx.doi.org/10.1016/j.rse.2006.04.014.

Williams, C.A., Collatz, G.J., Masek, J., and Goward, S.N., 2012, Carbon consequences of forest disturbance and recovery across the conterminous United States: Global Biogeochemical Cycles, v. 26, no. 1, citation number GB1005, at http://dx.doi.org/10.1029/2010GB003947.

Williams, C.A., Collatz, G.J., Masek, J., Huang, C., and Goward, S.N., 2014, Impacts of disturbance history on forest carbon stocks and fluxes—Merging satellite disturbance mapping with forest inventory data in a carbon cycle model framework: Remote Sensing of Environment, v. 151, p. 57-71, at http://dx.doi.org/10.1016/j.rse.2013.10.034.

Williams, D.L., Brown, M.E., Masek, J.G., Tucker, C.J., and Jarvis, C., 2011, A low-cost, small-sat mission concept to augment Landsat temporal repeat frequency, *in* Towards operational environmental monitoring, International Symposium on Remote Sensing of Environment—The GEOSS Era, 34th,

Sydney, Australia, 10-15 April 2011, Proceedings: Tuscon, Ariz., International Center for Remote Sensing of Environment, p. 1-4, at http://www.isprs.org/proceedings/2011/ISRSE-34/.

Williams, D.L., Goward, S., and Arvidson, T., 2006, Landsat—Yesterday, today, and tomorrow: Photogrammetric Engineering and Remote Sensing, v. 72, no. 10, p. 1171-1178, at http://dx.doi.org/10.14358/PERS.72.10.1171.

Wilson, M.J., and Oreopoulos, L., 2013, Enhancing a simple MODIS cloud mask algorithm for the Landsat data continuity mission: IEEE Transactions on Geoscience and Remote Sensing, v. 51, no. 2, p. 723-731, at http://dx.doi.org/10.1109/TGRS.2012.2203823.

Wilson, T.B., Meyers, T.P., Kochendorfer, J., Anderson, M.C., and Heuer, M., 2012, The effect of soil surface litter residue on energy and carbon fluxes in a deciduous forest: Agricultural and Forest Meteorology, v. 161, p. 134-147, at http://dx.doi.org/10.1016/j.agrformet.2012.03.013.

Winberry, J.P., Anandakrishnan, S., Alley, R.B., Bindschadler, R.A., and King, M.A., 2009, Basal mechanics of ice streams—Insights from the stick-slip motion of Whillans Ice Stream, West Antarctica: Journal of Geophysical Research F—Earth Surface, v. 114, no. 1, citation number F01016, at http://dx.doi.org/10.1029/2008JF001035.

Wing, B.M., Ritchie, M.W., Boston, K., Cohen, W.B., Gitelman, A., and Olsen, M.J., 2012, Prediction of understory vegetation cover with airborne lidar in an interior ponderosa pine forest: Remote Sensing of Environment, v. 124, p. 730-741, at http://dx.doi.org/10.1016/j.rse.2012.06.024.

Wing, B.M., Ritchie, M.W., Boston, K., Cohen, W.B., and Olsen, M.J., 2015, Individual snag detection using neighborhood attribute filtered airborne lidar data: Remote Sensing of Environment, v. 163, p. 165-179, at http://dx.doi.org/10.1016/j.rse.2015.03.013.

Wood, E.C., Wylie, B.K., Brown, J.F., Meyer, D.J., Maxwell, S., and Reed, B.C., 2006, Range condition as input to water quality monitoring in the northern plains, *in* Prospecting for geospatial information integration, Annual Conference, Reno, Nev., 1-5 May 2006, Proceedings: Bethesda, Md., American Society for Photogrammetry and Remote Sensing, p. 1599-1606, at http://www.ecognition.com/sites/default/files/183_asprs2006_0170.pdf.

Woodcock, C.E., Allen, R., Anderson, M., Belward, A., Bindschadler, R., Cohen, W., Gao, F., Goward, S.N., Helder, D., et al., 2008, Free access to Landsat imagery: Science, v. 320, no. 5879, p. 1011-1011, at http://dx.doi.org/10.1126/science.320.5879.1011a.

Woodcock, C.E., Olofsson, P., Jeon, S.B., and Stehman, S., 2010, The effect of map accuracy on estimates of terrestrial carbon budgets, *in* Tate, N.J., and Fisher, P.F., eds., Accuracy 2010—International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences, 9th, Leicester, UK, 20-23 July 2010, Proceedings: International Spatial Accuracy Research Association, p. 9-11, at http://www.spatial-accuracy.org/system/files/img-921091320_0.pdf.

Wright, P., Bergin, M., Dibb, J., Lefer, B., Domine, F., Carman, T., Carmagnola, C., Dumont, M., Courville, Z., et al., 2014, Comparing MODIS daily snow albedo to spectral albedo field measurements in Central Greenland: Remote Sensing of Environment, v. 140, p. 118-129, at http://dx.doi.org/10.1016/j.rse.2013.08.044.

Wu, Z., Thenkabail, P.S., Mueller, R., Zakzeski, A., Melton, F., Johnson, L., Rosevelt, C., Dwyer, J., Jones, J., et al., 2014, Seasonal cultivated and fallow cropland mapping using MODIS-based automated cropland classification algorithm: Journal of Applied Remote Sensing, v. 8, no. 1, citation identifier 083685, at http://dx.doi.org/10.1117/1.JRS.8.083685.

Wu, Z., Thenkabail, P.S., and Verdin, J.P., 2014, Automated cropland classification algorithm (ACCA) for California using multi-sensor remote sensing: Photogrammetric Engineering and Remote Sensing, v. 80, no. 1, p. 81-90, at http://dx.doi.org/10.14358/PERS.80.1.81.

Wulder, M.A., Bater, C.W., Coops, N.C., Hilker, T., and White, J.C., 2008, The role of LiDAR in sustainable forest management: Forestry Chronicle, v. 84, no. 6, p. 807-826, at http://dx.doi.org/10.5558/tfc84807-6.

Wulder, M.A., Butson, C.R., and White, J.C., 2008, Cross-sensor change detection over a forested landscape—Options to enable continuity of medium spatial resolution measures: Remote Sensing of Environment, v. 112, no. 3, p. 796-809, at http://dx.doi.org/10.1016/j.rse.2007.06.013.

Wulder, M.A., Campbell, C., White, J.C., Flannigan, M., and Campbell, I.D., 2007, National circumstances in the international circumboreal community: Forestry Chronicle, v. 83, no. 4, p. 539-556, at http://dx.doi.org/10.5558/tfc83539-4.

Wulder, M.A., and Coops, N.C., 2014, Satellites—Make Earth observations open access: Nature, v. 513, no. 7516, p. 30-31, at http://dx.doi.org/10.1038/513030a.

Wulder, M.A., Coops, N.C., Hudak, A.T., Morsdorf, F., Nelson, R., Newnham, G., and Vastaranta, M., 2013, Status and prospects for LiDAR remote sensing of forested ecosystems: Canadian Journal of Remote Sensing, v. 39, no. Suppl. 1, p. S1-S5, at http://dx.doi.org/10.5589/m13-051.

Wulder, M.A., Dymond, C.C., White, J.C., Leckie, D.G., and Carroll, A.L., 2006, Surveying mountain pine beetle damage of forests—A review of remote sensing opportunities: Forest Ecology and Management, v. 221, no. 1-3, p. 27-41, at http://dx.doi.org/10.1016/j.foreco.2005.09.021.

Wulder, M.A., Franklin, S.E., White, J.C., Linke, J., and Magnussen, S., 2006, An accuracy assessment framework for large-area land cover classification products derived from medium-resolution satellite data: International Journal of Remote Sensing, v. 27, no. 4, p. 663-683, at http://dx.doi.org/10.1080/01431160500185284.

Wulder, M.A., Han, T., White, J.C., Butson, C.R., and Hall, R.J., 2007, An approach for edge matching large-area satellite image classifications: Canadian Journal of Remote Sensing, v. 33, no. 1-4, p. 266-277, at http://dx.doi.org/10.5589/m07-035.

Wulder, M.A., Han, T., White, J.C., Sweda, T., and Tsuzuki, H., 2007, Integrating profiling LIDAR with Landsat data for regional boreal forest canopy attribute estimation and change characterization: Remote Sensing of Environment, v. 110, no. 1, p. 123-137, at http://dx.doi.org/10.1016/j.rse.2007.02.002.

Wulder, M.A., Hilker, T., White, J.C., Coops, N.C., Masek, J.G., Pflugmacher, D., and Crevier, Y., 2015, Virtual constellations for global terrestrial monitoring: Remote Sensing of Environment, v. 170, p. 62-76, at http://dx.doi.org/10.1016/j.rse.2015.09.001.

Wulder, M.A., and Masek, J.G., 2012, Preface to Landsat Legacy Special Issue—Continuing the Landsat Legacy: Remote Sensing of Environment, v. 122, p. 1-1, at http://dx.doi.org/10.1016/j.rse.2012.01.009.

Wulder, M.A., Masek, J.G., Cohen, W.B., Loveland, T.R., and Woodcock, C.E., 2012, Opening the archive—How free data has enabled the science and monitoring promise of Landsat: Remote Sensing of Environment, v. 122, p. 2-10, at http://dx.doi.org/10.1016/j.rse.2012.01.010.

Wulder, M.A., Nelson, T.A., Derksen, C., and Seemann, D., 2007, Snow cover variability across central Canada (1978-2002) derived from satellite passive microwave data: Climatic Change, v. 82, no. 1-2, p. 113-130, at http://dx.doi.org/10.1007/s10584-006-9148-9.

Wulder, M.A., Nelson, T.A., and Seemann, D., 2007, Using spatial pattern to quantify relationship between samples, surroundings, and populations: Environmental Monitoring and Assessment, v. 131, no. 1-3, p. 221-230, at http://dx.doi.org/10.1007/s10661-006-9470-8.

Wulder, M.A., Ortlepp, S.M., White, J.C., and Coops, N.C., 2008, Impact of sun-surface-sensor geometry upon multitemporal high spatial resolution satellitmultitemporale imagery: Canadian Journal of Remote Sensing, v. 34, no. 5, p. 455-461, at http://dx.doi.org/0.5589/m08-062.

Wulder, M.A., Ortlepp, S.M., White, J.C., Coops, N.C., and Coggins, S.B., 2009, Monitoring the impacts of mountain pine beetle mitigation: Forest Ecology and Management, v. 258, no. 7, p. 1181-1187, at http://dx.doi.org/10.1016/j.foreco.2009.06.008.

Wulder, M.A., Ortlepp, S.M., White, J.C., Coops, N.C., and Coggins, S.B., 2008, Monitoring tree-level insect population dynamics with multi-scale and multi-source remote sensing: Journal of Spatial Science, v. 53, no. 1, p. 49-61, at http://dx.doi.org/10.1080/14498596.2008.9635135.

Wulder, M.A., Ortlepp, S.M., White, J.C., and Maxwell, S., 2008, Evaluation of Landsat-7 SLC-off image products for forest change detection: Canadian Journal of Remote Sensing, v. 34, no. 1-2, p. 93-99, at http://dx.doi.org/10.5589/m08-020.

Wulder, M.A., Ortlepp, S.M., White, J.C., Nelson, T., and Coops, N.C., 2010, A provincial and regional assessment of the mountain pine beetle epidemic in British Columbia—1999-2008: Journal of Environmental Informatics, v. 15, no. 1, p. 1-13, at http://dx.doi.org/10.3808/jei.201000161.

Wulder, M.A., Stewart, B.P., Andrew, M.E., Smulders, M., Nelson, T., Coops, N.C., and Stenhouse, G.B., 2009, Remote sensing derived edge location, magnitude, and class transitions for ecological studies: Canadian Journal of Remote Sensing, v. 35, no. 6, p. 509-522, at http://dx.doi.org/10.5589/m10-007.

Wulder, M.A., White, J.C., Alvarez, F., Han, T., Rogan, J., and Hawkes, B., 2009, Characterizing boreal forest wildfire with multi-temporal Landsat and LIDAR data: Remote Sensing of Environment, v. 113, no. 7, p. 1540-1555, at http://dx.doi.org/10.1016/j.rse.2009.03.004.

Wulder, M.A., White, J.C., Andrew, M.E., Seitz, N.E., and Coops, N.C., 2009, Forest fragmentation, structure, and age characteristics as a legacy of forest management: Forest Ecology and Management, v. 258, no. 9, p. 1938-1949, at http://dx.doi.org/10.1016/j.foreco.2009.07.041.

Wulder, M.A., White, J.C., Bater, C.W., Coops, N.C., Hopkinson, C., and Chen, G., 2012, Lidar plots - a new large-area data collection option—Context, concepts, and case study: Canadian Journal of Remote Sensing, v. 38, no. 5, p. 600-618, at http://dx.doi.org/10.5589/m12-049.

Wulder, M.A., White, J.C., Bentz, B., Alvarez, M.F., and Coops, N.C., 2006, Estimating the probability of mountain pine beetle red-attack damage: Remote Sensing of Environment, v. 101, no. 2, p. 150-166, at http://dx.doi.org/10.1016/j.rse.2005.12.010.

Wulder, M.A., White, J.C., Bentz, B.J., and Ebata, T., 2006, Augmenting the existing survey hierarchy for mountain pine beetle red-attack damage with satellite remotely sensed data1: Forestry Chronicle, v. 82, no. 2, p. 187-202, at http://dx.doi.org/10.5558/tfc82187-2.

Wulder, M.A., White, J.C., Carroll, A.L., and Coops, N.C., 2009, Challenges for the operational detection of mountain pine beetle green attack with remote sensing: Forestry Chronicle, v. 85, no. 1, p. 32-38, at http://dx.doi.org/10.5558/tfc85032-1.

Wulder, M.A., White, J.C., and Coops, N.C., 2011, Fragmentation regimes of Canada's forests: Canadian Geographer, v. 55, no. 3, p. 288-300, at http://dx.doi.org/10.1111/j.1541-0064.2010.00335.x.

Wulder, M.A., White, J.C., Coops, N.C., and Butson, C.R., 2008, Multi-temporal analysis of high spatial resolution imagery for disturbance monitoring: Remote Sensing of Environment, v. 112, no. 6, p. 2729-2740, at http://dx.doi.org/10.1016/j.rse.2008.01.010.

Wulder, M.A., White, J.C., Coops, N.C., Nelson, T., and Boots, B., 2007, Using local spatial autocorrelation to compare outputs from a forest growth model: Ecological Modelling, v. 209, no. 2-4, p. 264-276, at http://dx.doi.org/10.1016/j.ecolmodel.2007.06.033.

Wulder, M.A., White, J.C., Coops, N.C., and Ortlepp, S., 2008, Remote sensing for studies of vegetation condition—Theory and application, chap. 25 *of* Warner, T.A., Nellis, M.D., and Foody, G.M., eds., The SAGE handbook of remote sensing: Los Angeles, Calif., SAGE, p. 357-367, at http://dx.doi.org/10.4135/9780857021052.n25.

Wulder, M.A., White, J.C., Cranny, M., Hall, R.J., Luther, J.E., Beaudoin, A., Goodenough, D.G., and Dechka, J.A., 2008, Monitoring Canada's forests. Part 1—Completion of the EOSD land cover project: Canadian Journal of Remote Sensing, v. 34, no. 6, p. 549-562, at http://dx.doi.org/10.5589/m08-066.

Wulder, M.A., White, J.C., Fournier, R.A., Luther, J.E., and Magnussen, S., 2008, Spatially explicit large area biomass estimation—Three approaches using forest inventory and remotely sensed imagery in a GIS: Sensors, v. 8, no. 1, p. 529-560, at http://dx.doi.org/10.3390/s8010529.

Wulder, M.A., White, J.C., Gillis, M.D., Walsworth, N., Hansen, M.C., and Potapov, P., 2010, Multiscale satellite and spatial information and analysis framework in support of a large-area forest monitoring and inventory update: Environmental Monitoring and Assessment, v. 170, no. 1-4, p. 417-433, at http://dx.doi.org/10.1007/s10661-009-1243-8.

Wulder, M.A., White, J.C., Goward, S.N., Masek, J.G., Irons, J.R., Herold, M., Cohen, W.B., Loveland, T.R., and Woodcock, C.E., 2008, Landsat continuity—Issues and opportunities for land cover monitoring: Remote Sensing of Environment, v. 112, no. 3, p. 955-969, at http://dx.doi.org/10.1016/j.rse.2007.07.004.

Wulder, M.A., White, J.C., Han, T., Coops, N.C., Cardille, J.A., Holland, T., and Grills, D., 2008, Monitoring Canada's forests. Part 2—National forest fragmentation and pattern: Canadian Journal of Remote Sensing, v. 34, no. 6, p. 563-584, at http://dx.doi.org/10.5589/m08-081.

Wulder, M.A., White, J.C., Hay, G.J., and Castilla, G., 2008, Towards automated segmentation of forest inventory polygons on high spatial resolution satellite imagery: Forestry Chronicle, v. 84, no. 2, p. 221-230, at http://dx.doi.org/10.5558/tfc84221-2.

Wulder, M.A., White, J.C., Loveland, T.R., Woodcock, C.E., Belward, A.S., Cohen, W.B., Fosnight, E.A., Shaw, J., Masek, J.G., et al., in press, The global Landsat archive—Status, consolidation, and direction: Remote Sensing of Environment, p. 0-0, at http://dx.doi.org/10.1016/j.rse.2015.11.032.

Wulder, M.A., White, J.C., Luther, J.E., Strickland, G., Remmel, T.K., and Mitchell, S.W., 2006, Use of vector polygons for the accuracy assessment of pixel-based land cover maps: Canadian Journal of Remote Sensing, v. 32, no. 3, p. 268-279, at http://dx.doi.org/10.5589/m06-023.

Wulder, M.A., White, J.C., Magnussen, S., and McDonald, S., 2007, Validation of a large area land cover product using purpose-acquired airborne video: Remote Sensing of Environment, v. 106, no. 4, p. 480-491, at http://dx.doi.org/10.1016/j.rse.2006.09.012.

Wulder, M.A., White, J.C., Masek, J.G., Dwyer, J., and Roy, D.P., 2011, Continuity of Landsat observations—Short term considerations: Remote Sensing of Environment, v. 115, no. 2, p. 747-751, at http://dx.doi.org/10.1016/j.rse.2010.11.002.

Wulder, M.A., White, J.C., Nelson, R.F., Næsset, E., Ørka, H.O., Coops, N.C., Hilker, T., Bater, C.W., and Gobakken, T., 2012, Lidar sampling for large-area forest characterization—A review: Remote Sensing of Environment, v. 121, p. 196-209, at http://dx.doi.org/10.1016/j.rse.2012.02.001.

Wulder, M.A., White, J.C., Stinson, G., Hilker, T., Kurz, W.A., Coops, N.C., St-Onge, B., and Trofymow, J.A., 2010, Implications of differing input data sources and approaches upon forest carbon stock estimation: Environmental Monitoring and Assessment, v. 166, no. 1-4, p. 543-561, at http://dx.doi.org/10.1007/s10661-009-1022-6.

Wunderle Jr, J.M., Currie, D., Helmer, E.H., Ewert, D.N., White, J.D., Ruzycki, T.S., Parresol, B., and Kwit, C., 2010, Kirtland's Warblers in anthropogenically disturbed early-successional habitats on Eleuthera, the Bahamas: Condor, v. 112, no. 1, p. 123-137, at http://dx.doi.org/10.1525/cond.2010.090134.

Wynne, R.H., 2006, Lidar remote sensing of forest resources at the scale of management: Photogrammetric Engineering and Remote Sensing, v. 72, no. 12, p. 1310-1314, at http://www.asprs.org/Photogrammetric-Engineering-and-Remote-Sensing/PE-RS-Journals.html.

Wynne, R.H., Joseph, K.A., Browder, J.O., and Summers, P.M., 2007, Comparing farmer-based and satellite-derived deforestation estimates in the Amazon basin using a hybrid classifier: International Journal of Remote Sensing, v. 28, no. 6, p. 1299-1315, at http://dx.doi.org/10.1080/01431160600928609.

Wynne, R.H., and Nelson, R.F., 2006, Foreword—SilviScan special issue—Lidar applications in forest assessment and inventory: Photogrammetric Engineering and Remote Sensing, v. 72, no. 12, p. 1337-1338, at http://eserv.asprs.org/PERS/2006journal/dec/2006_dec_foreword.pdf.

Xia, T., Kustas, W.P., Anderson, M.C., Alfieri, J.G., Gao, F., McKee, L., Prueger, J.H., Geli, H.M.E., Neale, C.M.U., et al., 2016, Mapping evapotranspiration with high-resolution aircraft imagery over vineyards using one-and two-source modeling schemes: Hydrology and Earth System Sciences, v. 20, no. 4, p. 1523-1545, at http://dx.doi.org/10.5194/hess-20-1523-2016.

Xin, Q., Olofsson, P., Zhu, Z., Tan, B., and Woodcock, C.E., 2013, Toward near real-time monitoring of forest disturbance by fusion of MODIS and Landsat data: Remote Sensing of Environment, v. 135, p. 234-247, at http://dx.doi.org/10.1016/j.rse.2013.04.002.

Xin, Q., Woodcock, C.E., Liu, J., Tan, B., Melloh, R.A., and Davis, R.E., 2012, View angle effects on MODIS snow mapping in forests: Remote Sensing of Environment, v. 118, p. 50-59, at http://dx.doi.org/10.1016/j.rse.2011.10.029.

Xiong, X., Wolfe, R., Barnes, W., Guenther, B., Vermote, E., Saleous, N., and Salomonson, V., 2011, Terra and aqua MODIS design, radiometry, and geometry in support of land remote sensing, Remote Sensing and Digital Image Processing, v. 11, p. 133-164, at http://dx.doi.org/10.1007/978-1-4419-6749-7_7.

Xu, L., Myneni, R.B., Chapin, F.S., Callaghan, T.V., Pinzon, J.E., Tucker, C.J., Zhu, Z., Bi, J., Ciais, P., et al., 2013, Temperature and vegetation seasonality diminishment over northern lands: Nature Climate Change, v. 3, no. 6, p. 581-586, at http://dx.doi.org/10.1038/nclimate1836.

Xu, L., Samanta, A., Costa, M.H., Ganguly, S., Nemani, R.R., and Myneni, R.B., 2011, Widespread decline in greenness of Amazonian vegetation due to the 2010 drought: Geophysical Research Letters, v. 38, no. 7, citation number L07402, at http://dx.doi.org/10.1029/2011GL046824.

Yan, L., and Roy, D.P., 2014, Automated crop field extraction from multi-temporal Web Enabled Landsat Data: Remote Sensing of Environment, v. 144, p. 42-64, at http://dx.doi.org/10.1016/j.rse.2014.01.006.

Yan, L., and Roy, D.P., 2016, Conterminous United States crop field size quantification from multi-temporal Landsat data: Remote Sensing of Environment, v. 172, p. 67-86, at http://dx.doi.org/10.1016/j.rse.2015.10.034.

Yan, L., and Roy, D.P., 2015, Improved time series land cover classification by missing-observation-adaptive nonlinear dimensionality reduction: Remote Sensing of Environment, v. 158, p. 478-491, at http://dx.doi.org/10.1016/j.rse.2014.11.024.

Yang, F., Ichii, K., White, M.A., Hashimoto, H., Michaelis, A.R., Votava, P., Zhu, A.X., Huete, A., Running, S.W., et al., 2007, Developing a continental-scale measure of gross primary production by combining MODIS and AmeriFlux data through Support Vector Machine approach: Remote Sensing of Environment, v. 110, no. 1, p. 109-122, at http://dx.doi.org/10.1016/j.rse.2007.02.016.

Yang, F., White, M.A., Michaelis, A.R., Ichii, K., Hashimoto, H., Votava, P., Zhu, A.X., and Nemani, R.R., 2006, Prediction of continental-scale evapotranspiration by combining MODIS and AmeriFlux data through support vector machine: IEEE Transactions on Geoscience and Remote Sensing, v. 44, no. 11, p. 3452-3461, at http://dx.doi.org/10.1109/TGRS.2006.876297.

Yang, F., Zhu, A.X., Ichii, K., White, M.A., Hashimoto, H., and Nemani, R.R., 2008, Assessing the representativeness of the AmeriFlux network using MODIS and GOES data: Journal of Geophysical Research G—Biogeosciences, v. 113, no. 4, citation number G04036, at http://dx.doi.org/10.1029/2007JG000627.

Yang, G., Weng, Q., Pu, R., Gao, F., Sun, C., Li, H., and Zhao, C., 2016, Evaluation of ASTER-like daily land surface temperature by fusing ASTER and MODIS data during the HiWATER-MUSOEXE: Remote Sensing, v. 8, no. 1, at http://dx.doi.org/10.3390/rs8010075.

Yang, W., Huang, D., Tan, B., Stroeve, J.C., Shabanov, N.V., Knyazikhin, Y., Nemani, R.R., and Myneni, R.B., 2006, Analysis of leaf area index and fraction of PAR absorbed by vegetation products from the terra MODIS sensor—2000-2005: IEEE Transactions on Geoscience and Remote Sensing, v. 44, no. 7, p. 1829-1841, at http://dx.doi.org/10.1109/TGRS.2006.871214.

Yang, W., Shabanov, N.V., Huang, D., Wang, W., Dickinson, R.E., Nemani, R.R., Knyazikhin, Y., and Myneni, R.B., 2006, Analysis of leaf area index products from combination of MODIS Terra and Aqua data: Remote Sensing of Environment, v. 104, no. 3, p. 297-312, at http://dx.doi.org/10.1016/j.rse.2006.04.016.

Yang, W., Tan, B., Huang, D., Rautiainen, M., Shabanov, N.V., Wang, Y., Privette, J.L., Huemmrich, K.F., Fensholt, R., et al., 2006, MODIS leaf area index products—From validation to algorithm improvement: IEEE Transactions on Geoscience and Remote Sensing, v. 44, no. 7, p. 1885-1896, at http://dx.doi.org/10.1109/TGRS.2006.871215.

Yang, X., Schaaf, C., Strahler, A., Kunz, T., Fuller, N., Betke, M., Wu, Z., Wang, Z., Theriault, D., et al., 2013, Study of bat flight behavior by combining thermal image analysis with a LiDAR forest reconstruction: Canadian Journal of Remote Sensing, v. 39, no. Suppl. 1, p. S112-S125, at http://dx.doi.org/10.5589/m13-034.

Yang, X., Schaaf, C., Strahler, A., Li, Z., Wang, Z., Yao, T., Zhao, F., Saenz, E., Paynter, I., et al., 2013, Studying canopy structure through 3-D reconstruction of point clouds from full-waveform terrestrial lidar, *in* International Geoscience and Remote Sensing Symposium, Melbourne, Australia, 21-26 July 2013, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 3375-3378, at http://dx.doi.org/10.1109/IGARSS.2013.6723552.

Yang, X., Strahler, A.H., Schaaf, C.B., Jupp, D.L.B., Yao, T., Zhao, F., Wang, Z., Culvenor, D.S., Newnham, G.J., et al., 2013, Three-dimensional forest reconstruction and structural parameter retrievals using a terrestrial full-waveform lidar instrument (Echidna®): Remote Sensing of Environment, v. 135, p. 36-51, at http://dx.doi.org/10.1016/j.rse.2013.03.020.

Yang, Y., Marshak, A., Palm, S.P., Wang, Z., and Schaaf, C., 2013, Assessment of cloud screening with apparent surface reflectance in support of the ICESat-2 mission: IEEE Transactions on Geoscience and Remote Sensing, v. 51, no. 2, p. 1037-1045, at http://dx.doi.org/10.1109/TGRS.2012.2204066.

Yao, T., Yang, X., Zhao, F., Wang, Z., Zhang, Q., Jupp, D., Lovell, J., Culvenor, D., Newnham, G., et al., 2011, Measuring forest structure and biomass in New England forest stands using Echidna ground-based lidar: Remote Sensing of Environment, v. 115, no. 11, p. 2965-2974, at http://dx.doi.org/10.1016/j.rse.2010.03.019.

Yeo, I.Y., Lang, M., and Vermote, E., 2014, Improved understanding of suspended sediment transport process using multioral Landsat data—a case study from the old woman creek Estuary (Ohio): IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 7, no. 2, p. 636-647, at http://dx.doi.org/10.1109/JSTARS.2013.2265191.

Yeo, I.Y., Lang, M., and Vermote, E., 2013, Improved understanding of suspended sediment transport process using multi-temporal Landsat data—A case study from the Old Woman Creek Estuary (Ohio): IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 7, no. 2, p. 636-647, at http://dx.doi.org/10.1109/JSTARS.2013.2265191.

Yi, B., Yang, P., Baum, B.A., L'Ecuyer, T., Oreopoulos, L., Mlawer, E.J., Heymsfield, A.J., and Liou, K.N., 2013, Influence of ice particle surface roughening on the global cloud radiative effect: Journal of the Atmospheric Sciences, v. 70, no. 9, p. 2794-2807, at http://dx.doi.org/10.1175/JAS-D-13-020.1.

Yi, Y., Kimball, J.S., Jones, L.A., Reichle, R.H., Nemani, R., and Margolis, H.A., 2013, Recent climate and fire disturbance impacts on boreal and arctic ecosystem productivity estimated using a satellite-based terrestrial carbon flux model: Journal of Geophysical Research G—Biogeosciences, v. 118, no. 2, p. 606-622, at http://dx.doi.org/10.1002/jgrg.20053.

Yilmaz, M.T., Anderson, M.C., Zaitchik, B., Hain, C.R., Crow, W.T., Ozdogan, M., Chun, J.A., and Evans, J., 2014, Comparison of prognostic and diagnostic surface flux modeling approaches over the Nile River Basin: Water Resources Research, v. 50, no. 1, p. 386-408, at http://dx.doi.org/10.1002/2013WR014194.

Yilmaz, M.T., Crow, W.T., Anderson, M.C., and Hain, C., 2012, An objective methodology for merging satellite- and model-based soil moisture products: Water Resources Research, v. 48, no. 11, citation number W11502, at http://dx.doi.org/10.1029/2011WR011682.

Yin, H., Pflugmacher, D., Kennedy, R.E., Sulla-Menashe, D., and Hostert, P., 2014, Mapping annual land use and land cover changes using MODIS time series: IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, v. 7, no. 8, p. 3421-3427, at http://dx.doi.org/10.1109/JSTARS.2014.2348411.

Yin, H., Udelhoven, T., Fensholt, R., Pflugmacher, D., and Hostert, P., 2012, How normalized difference vegetation index (NDVI) trends from advanced very high resolution radiometer (AVHRR) and système probatoire d'observation de la terre vegetation (SPOT VGT) time series differ in agricultural areas—An inner mongolian case study: Remote Sensing, v. 4, no. 11, p. 3364-3389, at http://dx.doi.org/10.5829/idosi.mejsr.2012.12.3.64113.

Yu, L., Ball, S.B., Blinn, C.E., Moeltner, K., Peery, S., Thomas, V.A., and Wynne, R.H., 2015, Cloud-sourcing—Using an online labor force to detect clouds and cloud shadows in Landsat images: Remote Sensing, v. 7, no. 3, p. 2334-2351, at http://dx.doi.org/10.3390/rs70302334.

Yuan, F., Sheng, Y., Yao, T., Fan, C., Li, J., Zhao, H., and Lei, Y., 2011, Evaporative enrichment of oxygen-18 and deuterium in lake waters on the Tibetan Plateau: Journal of Paleolimnology, v. 46, no. 2, p. 291-307, at http://dx.doi.org/10.1007/s10933-011-9540-y.

Yuan, K., Thome, K., and McCorkel, J., 2015, Radiometric cross-calibration of Terra ASTER and MODIS, *in* Butler, J.J., Xiong, X., and Gu, X., eds/, Earth Observing Systems XX, San Diego, Calif., 9 August 2015, Proceedings of SPIE Vol. 9607: Bellingham, Wash., Society of Photo-Optical Instrumentation Engineers (SPIE), article number 960724, at http://dx.doi.org/10.1117/12.2185539.

Yuan, T., and Oreopoulos, L., 2013, On the global character of overlap between low and high clouds: Geophysical Research Letters, v. 40, no. 19, p. 5320-5326, at http://dx.doi.org/10.1002/grl.50871.

Yuan, T., Remer, L.A., Bian, H., Ziemke, J.R., Albrecht, R., Pickering, K.E., Oreopoulos, L., Goodman, S.J., Yu, H., et al., 2012, Aerosol indirect effect on tropospheric ozone via lightning: Journal of Geophysical Research D—Atmospheres, v. 117, no. 17, citation number D18213, at http://dx.doi.org/10.1029/2012JD017723.

Zagorodnov, V., Nagornov, O., Scambos, T.A., Muto, A., Mosley-Thompson, E., Pettit, E.C., and Tyuflin, S., 2012, Borehole temperatures reveal details of 20th century warming at Bruce Plateau, Antarctic Peninsula: Cryosphere, v. 6, no. 3, p. 675-686, at http://dx.doi.org/10.5194/tc-6-675-2012.

Zaitchik, B.F., Simane, B., Habib, S., Anderson, M.C., Ozdogan, M., and Foltz, J.D., 2012, Building climate resilience in the Blue Nile/Abay Highlands—A role for earth system sciences: International Journal of Environmental Research and Public Health, v. 9, no. 2, p. 435-461, at http://dx.doi.org/10.3390/ijerph9020435.

Zald, H.S.J., Wulder, M.A., White, J.C., Hilker, T., Hermosilla, T., Hobart, G.W., and Coops, N.C., 2016, Integrating Landsat pixel composites and change metrics with lidar plots to predictively map forest structure and aboveground biomass in Saskatchewan, Canada: Remote Sensing of Environment, v. 176, p. 188-201, at http://dx.doi.org/10.1016/j.rse.2016.01.015.

Zhang, G., Ganguly, S., Nemani, R.R., White, M.A., Milesi, C., Hashimoto, H., Wang, W., Saatchi, S., Yu, Y., et al., 2014, Estimation of forest aboveground biomass in California using canopy height and leaf area index estimated from satellite data: Remote Sensing of Environment, v. 151, p. 44-56, at http://dx.doi.org/10.1016/j.rse.2014.01.025.

Zhang, G., Lowry, K., Nemani, R., Skiles, J.W., and Schmidt, C., 2009, Modeling current and future water use in Utah with NASA's Terrestrial Observation and Prediction System, *in* Reflection of the past, vision for the future, Annual Conference, Baltimore, Md., 8-13 March 2009, Proceedings: Baltimore, Md., American Society for Photogrammetry and Remote Sensing, p. 934-942, at http://www.asprs.org/a/publications/proceedings/baltimore09/0108.pdf.

Zhang, H.K., and Roy, D.P., 2016, Computationally inexpensive Landsat 8 Operational Land Imager (OLI) pansharpening: Remote Sensing, v. 8, no. 3, at http://dx.doi.org/10.3390/rs8030180.

Zhang, J., Roy, D., Devadiga, S., and Zheng, M., 2007, Anomaly detection in MODIS land products via time series analysis: Geo-Spatial Information Science, v. 10, no. 1, p. 44-50, at http://dx.doi.org/10.1007/s11806-007-0003-6.

Zhang, J., Votava, P., Lee, T.J., Adhikarla, S., Kulkumjon, I., Schlau, M., Natesan, D., and Nemani, R., 2013, A technique of analyzing trust relationships to facilitate scientific service discovery and recommendation, *in* O'Conner, L., ed., International Conference on Services Computing, 10th, Santa Clara, Calif., 27 June-2 July 2013, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 57-64, at http://dx.doi/org/10.1109/SCC.2013.104.

Zhang, J., Votava, P., Lee, T.J., Chu, O., Li, C., Liu, D., Liu, K., Xin, N., and Nemani, R., 2013, Bridging VisTrails scientific workflow management system to high performance computing, *in* O'Conner, L., ed., World Congress on Services, 9th, Santa Clara, Calif., 27 June-2 July 2013, Proceedings: Piscataway, N.J., Institute of Electrical and Electronics Engineers (IEEE), p. 29-36, at http://dx.doi/org/10.1109/SERVICES.2013.64.

Zhang, K., Kimball, J.S., Nemani, R.R., and Running, S.W., 2010, A continuous satellite-derived global record of land surface evapotranspiration from 1983 to 2006: Water Resources Research, v. 46, no. 9, citation number W09522, at http://dx.doi.org/10.1029/2009WR008800.

Zhang, L., Wylie, B., Loveland, T., Fosnight, E., Tieszen, L.L., Ji, L., and Gilmanov, T., 2007, Evaluation and comparison of gross primary production estimates for the Northern Great Plains grasslands: Remote Sensing of Environment, v. 106, no. 2, p. 173-189, at http://dx.doi.org/10.1016/j.rse.2006.08.012.

Zhang, Q., Justice, C.O., Jiang, M., Brunner, J., and Wilkie, D.S., 2006, A GIS-based assessment on the vulnerability and future extent of the tropical forests of the Congo Basin: Environmental Monitoring and Assessment, v. 114, no. 1-3, p. 107-121, at http://dx.doi.org/10.1007/s10661-006-2015-3.

Zhang, Q., Schaaf, C., and Seto, K.C., 2013, The Vegetation adjusted NTL Urban Index—A new approach to reduce saturation and increase variation in nighttime luminosity: Remote Sensing of Environment, v. 129, p. 32-41, at http://dx.doi.org/10.1016/j.rse.2012.10.022.

Zhang, X., Friedl, M.A., and Schaaf, C.B., 2006, Global vegetation phenology from Moderate Resolution Imaging Spectroradiometer (MODIS)—Evaluation of global patterns and comparison with in situ measurements: Journal of Geophysical Research G—Biogeosciences, v. 111, no. 4, citation number G04017, at http://dx.doi.org/10.1029/2006JG000217.

Zhang, X., Friedl, M.A., and Schaaf, C.B., 2009, Sensitivity of vegetation phenology detection to the temporal resolution of satellite data: International Journal of Remote Sensing, v. 30, no. 8, p. 2061-2074, at http://dx.doi.org/10.1080/01431160802549237.

Zhang, X., Kondragunta, S., and Roy, D.P., 2014, Interannual variation in biomass burning and fire seasonality derived from geostationary satellite data across the contiguous United States from 1995 to 2011: Journal of Geophysical Research G—Biogeosciences, v. 119, no. 6, p. 1147-1162, at http://dx.doi.org/10.1002/2013JG002518.

Zhao, F., Strahler, A.H., Schaaf, C.L., Yao, T., Yang, X., Wang, Z., Schull, M.A., Román, M.O., Woodcock, C.E., et al., 2012, Measuring gap fraction, element clumping index and LAI in Sierra Forest stands using a full-waveform ground-based lidar: Remote Sensing of Environment, v. 125, p. 73-79, at http://dx.doi.org/10.1016/j.rse.2012.07.007.

Zhao, F., Yang, X., Schull, M.A., Román-Colón, M.O., Yao, T., Wang, Z., Zhang, Q., Jupp, D.L.B., Lovell, J.L., et al., 2011, Measuring effective leaf area index, foliage profile, and stand height in New England forest stands using a full-waveform ground-based lidar: Remote Sensing of Environment, v. 115, no. 11, p. 2954-2964, at http://dx.doi.org/10.1016/j.rse.2010.08.030.

Zhao, F., Yang, X., Strahler, A.H., Schaaf, C.L., Yao, T., Wang, Z., Román, M.O., Woodcock, C.E., Ni-Meister, W., et al., 2013, A comparison of foliage profiles in the Sierra National Forest obtained with a full-waveform under-canopy EVI lidar system with the foliage profiles obtained with an airborne full-waveform LVIS lidar system: Remote Sensing of Environment, v. 136, p. 330-341, at http://dx.doi.org/10.1016/j.rse.2013.05.020.

Zhao, H., Li, G., Sheng, Y., Jin, M., and Chen, F., 2012, Early-middle Holocene lake-desert evolution in northern Ulan Buh Desert, China: Palaeogeography, Palaeoclimatology, Palaeoecology, v. 331-332, p. 31-38, at http://dx.doi.org/10.1016/j.palaeo.2012.02.027.

Zhao, J., Wang, Y., Hashimoto, H., Melton, F.S., Hiatt, S.H., Zhang, H., and Nemani, R.R., 2013, The variation of land surface phenology from 1982 to 2006 along the appalachian trail: IEEE Transactions on Geoscience and Remote Sensing, v. 51, no. 4, p. 2087-2095, at http://dx.doi.org/10.1109/TGRS.2012.2217149.

Zhao, M., Running, S.W., and Nemani, R.R., 2006, Sensitivity of Moderate Resolution Imaging Spectroradiometer (MODIS) terrestrial primary production to the accuracy of meteorological reanalyses: Journal of Geophysical Research G—Biogeosciences, v. 111, no. 1, citation number G01002, at http://dx.doi.org/10.1029/2004JG000004.

Zheng, B., Campbell, J.B., Shao, Y., and Wynne, R.H., 2013, Broad-scale monitoring of tillage practices using sequential Landsat imagery: Soil Science Society of America Journal, v. 77, no. 5, p. 1755-1764, at http://dx.doi.org/10.2136/sssaj2013.03.0108.

Zhou, L., Tian, Y., Myneni, R.B., Ciais, P., Saatchi, S., Liu, Y.Y., Piao, S., Chen, H., Vermote, E.F., et al., 2014, Widespread decline of Congo rainforest greenness in the past decade: Nature, v. 508, no. 7498, p. 86-90, at http://dx.doi.org/10.1038/nature13265.

Zhou, Q., Hill, M.J., Sun, Q., and Schaaf, C.B., 2016, Retrieving understorey dynamics in the Australian tropical savannah from time series decomposition and linear unmixing of MODIS data: International Journal of Remote Sensing, v. 37, no. 6, p. 1445-1475, at http://dx.doi.org/10.1080/01431161.2016.1154224.

Zhu, X., Chen, J., Gao, F., Chen, X., and Masek, J.G., 2010, An enhanced spatial and temporal adaptive reflectance fusion model for complex heterogeneous regions: Remote Sensing of Environment, v. 114, no. 11, p. 2610-2623, at http://dx.doi.org/10.1016/j.rse.2010.05.032.

Zhu, X., Gao, F., Liu, D., and Chen, J., 2012, A modified neighborhood similar pixel interpolator approach for removing thick clouds in Landsat images: IEEE Geoscience and Remote Sensing Letters, v. 9, no. 3, p. 521-525, at http://dx.doi.org/10.1109/LGRS.2011.2173290.

Zhu, Z., Bi, J., Pan, Y., Ganguly, S., Anav, A., Xu, L., Samanta, A., Piao, S., Nemani, R.R., et al., 2013, Global data sets of vegetation leaf area index (LAI)3g and fraction of photosynthetically active radiation (FPAR)3g derived from global inventory modeling and mapping studies (GIMMS) normalized difference vegetation index (NDVI3G) for the period 1981 to 2011: Remote Sensing, v. 5, no. 2, p. 927-948, at http://dx.doi.org/10.3390/rs5020927.

Zhu, Z., Fu, Y., Woodcock, C.E., Olofsson, P., Vogelmann, J.E., Holden, C., Wang, M., Dai, S., and Yu, Y., 2016, Including land cover change in analysis of greenness trends using all available Landsat 5, 7,

and 8 images—A case study from Guangzhou, China (2000-2014): Remote Sensing of Environment, at http://dx.doi.org/10.1016/j.rse.2016.03.036.

Zhu, Z., Wang, S., and Woodcock, C.E., 2015, Improvement and expansion of the Fmask algorithm—Cloud, cloud shadow, and snow detection for Landsats 4-7, 8, and Sentinel 2 images: Remote Sensing of Environment, v. 159, p. 267-277, at http://dx.doi.org/10.1016/j.rse.2014.12.014.

Zhu, Z., and Woodcock, C.E., 2014, Automated cloud, cloud shadow, and snow detection in multitemporal Landsat data—An algorithm designed specifically for monitoring land cover change: Remote Sensing of Environment, v. 152, p. 217-234, at http://dx.doi.org/10.1016/j.rse.2014.06.012.

Zhu, Z., and Woodcock, C.E., 2014, Continuous change detection and classification of land cover using all available Landsat data: Remote Sensing of Environment, v. 144, p. 152-171, at http://dx.doi.org/10.1016/j.rse.2014.01.011.

Zhu, Z., and Woodcock, C.E., 2012, Object-based cloud and cloud shadow detection in Landsat imagery: Remote Sensing of Environment, v. 118, p. 83-94, at http://dx.doi.org/10.1016/j.rse.2011.10.028.

Zhu, Z., Woodcock, C.E., Holden, C., and Yang, Z., 2015, Generating synthetic Landsat images based on all available Landsat data—Predicting Landsat surface reflectance at any given time: Remote Sensing of Environment, v. 162, p. 67-83, at http://dx.doi.org/10.1016/j.rse.2015.02.009.

Zhu, Z., Woodcock, C.E., and Olofsson, P., 2012, Continuous monitoring of forest disturbance using all available Landsat imagery: Remote Sensing of Environment, v. 122, p. 75-91, at http://dx.doi.org/10.1016/j.rse.2011.10.030.

Zhu, Z., Woodcock, C.E., Rogan, J., and Kellndorfer, J., 2012, Assessment of spectral, polarimetric, temporal, and spatial dimensions for urban and peri-urban land cover classification using Landsat and SAR data: Remote Sensing of Environment, v. 117, p. 72-82, at http://dx.doi.org/10.1016/j.rse.2011.07.020.

Zoogman, P., Liu, X., Chance, K., Sun, Q., Schaaf, C., Mahr, T., and Wagner, T., 2016, A climatology of visible surface reflectance spectra: Journal of Quantitative Spectroscopy and Radiative Transfer, v. 180, p. 39-46, at http://dx.doi.org/10.1016/j.jqsrt.2016.04.003.