
MIKE HOBBS, B.Eng., M.S., Ph.D.

NOAA-Physical Sciences Laboratory, Boulder, CO 80305

<http://orcid.org/0000-0001-5540-8466> • www.researcherid.com/rid/N-4630-2014

303-497-3092 • mike.hobbins@noaa.gov

PRESENTATIONS

Invited Presentations

Hobbins MT, and Ramírez JA (2019), Evapotranspiration, evaporative demand, and Jorge Ramírez: 25 years from fundamental research to applied tools. *39th Annual AGU Hydrology Days*, Fort Collins, CO, 27-29 March.

Ek MB, Franz KJ, Gochis DJ, **Hobbins MT**, and Lettenmaier DP (2019), The AMS Hydrology Committee: The past, present and future. *Town Hall Meeting, 99th American Meteorological Society Annual Meeting*, Phoenix, AZ, 6-10 January.

Hobbins MT (2018), The Evaporative Demand Drought Index: Early warning, monitoring, and attribution of drought, flash drought, and fire-risk. *Denver Water*, Denver, CO, 26 November.

Hobbins MT, McEvoy DJ, and Shukla S (2018), Evaporative demand: Dynamics and opportunities in drought early warning, monitoring, and S2S predictability. *Aspen Global Change Institute Workshop: When the Rain Stops: Drought on Sub-seasonal and Longer Timescales*, Aspen, CO, 10-14 September.

Hobbins MT, Dewes CF, Huntington JL, McEvoy DJ, Rangwala I, and Shukla S (2018), Evaporative demand: Dynamics and opportunities in drought early warning, monitoring, and vulnerability assessment. *Interagency Conference on Research in the Watersheds: Working Watersheds and Coastal Systems: Research and Management for a Changing Future*, Shepherdstown, WV, 23-26 July.

Hobbins MT (2018), The Evaporative Demand Drought Index (EDDI): An emerging drought-monitoring and early warning tool. *43rd Annual Natural Hazards Research and Applications Workshop*, Broomfield, CO, 8-11 July.

Hobbins MT, Dewes CF, Huntington JL, McEvoy DJ, Morton CG, and Yocum HM (2018), Introducing the Evaporative Demand Drought Index (EDDI): A new drought-monitoring and early warning tool. *North American Drought Monitor Forum*, Calgary, AB, Canada, 1-3 May.

Hobbins MT, Barsugli JJ, Dewes CF, Huntington JL, Lukas JJ, McEvoy DJ, Morton CG, Rangwala I, Ray AJ, Smith C, Wood AW, and Yocum HM (2018), The Evaporative Demand Drought Index (EDDI): Early warning and monitoring of drought from the demand side. *American Water Works Association Sustainable Water Management Conference*, Seattle, WA, 25 March.

Hobbins MT, McEvoy DJ, Wood AW, and Huntington JL (2017), The Evaporative Demand Drought Index (EDDI): A new drought monitoring and early warning tool. *Universities Council on Water Resources / National Institutes for Water Resources Conference*, Fort Collins, CO, 13-15 June.

Hobbins MT, Barsugli JJ, Dewes CF, Huntington JL, Lukas JJ, McEvoy DJ, Morton CG, Rangwala I, Ray AJ, and Yocum HM (2017), The Evaporative Demand Drought Index (EDDI): An emerging drought-monitoring and early warning tool. *U.S. Drought Monitor Forum*, Keystone, SD, 3-5 April.

Hobbins MT (2017), The Evaporative Demand Drought Index (EDDI): A new drought monitoring and early warning tool. *Colorado Water Conservation Board Water Availability Task Force meeting*, Denver, CO, 21 March.

Hobbins MT (2017), The Evaporative Demand Drought Index (EDDI): An emerging drought-monitoring and early warning tool. *Missouri River Basin Drought Early Warning System Meeting and New Tools Workshop*, Nebraska City, NE, 7-9 March.

Hobbins MT (2016), The Evaporative Demand Drought Index (EDDI): An emerging drought-monitoring and early warning tool. *DWD-NOAA Workshop*, Dresden, Germany, 16-18 November.

Hobbins MT (2016), The Evaporative Demand Drought Index (EDDI): An emerging drought-monitoring and early warning tool. *Pacific Northwest Drought Early Warning System Meeting*, Boise, ID, 10 November.

Hobbins MT (2016), The Evaporative Demand Drought Index (EDDI): An emerging drought-monitoring and early warning tool. *Intermountain West Drought Early Warning System Meeting*, Denver, CO, 25 October.

Hobbins MT (2016), Large-scale evaporative demand: Opportunities in reanalyses, forecasting, and projections. *US Committee on Irrigation and Drainage Evapotranspiration Workshop*, Fort Collins, CO, 13 October.

Hobbins MT (2016), The Evaporative Demand Drought Index (EDDI): An emerging drought-monitoring and early warning tool. *Intermountain West Drought Early Warning System Drought and Climate Outlook Meeting*, Oracle, AZ, 20 September.

Hobbins MT (2016), Evapotranspiration and drought: Early warning, monitoring, and climate-scale projections. *Cooperative Institute for Research in Environmental Sciences Review*, Boulder, CO, 29-31 August.

Hobbins MT (2015), Evaporative demand (and evapotranspiration): Modeling and projections. *Workshop on High-Resolution Climate Modeling in the Northern Great Plains*, Boulder, CO, 24-25 September.

Hobbins MT (2015), Gridded weather and reference ET data for US and global ET mapping. *International Workshop on Evapotranspiration Mapping for Water Security*, Washington, D.C., 15-17 September.

Hobbins MT (2014), NOAA's reference ET forecast and reanalysis products. *WERA-1022 Meteorological and Climate Data to Support ET-Based Irrigation Scheduling, Water Conservation, and Water Resources Management*, Orlando, FL, 17-18 September.

Hobbins MT (2014), Evapotranspiration and evaporative demand: How important are physically based estimates? *North Central Climate Science Center: Mini Workshop on Evapotranspiration*, Fort Collins, CO, 5 May.

Hobbins MT (2013), Evaporative demand: Drought impacts and assessment. *Western States Water Council-California Department of Water Resources Workshop on Measuring, Quantifying, and Reporting Drought Impacts*, San Diego, CA, 5-7 August.

First-author Presentations

Hobbins MT, McNally AL, Sarmiento DP, Jansma T, Husak GJ, Turner W, and Verdin JP (2020), Using a new evaporative demand reanalysis to understand the demand perspective of drought and food insecurity in Africa. *American Meteorological Society Annual Meeting*, Boston, MA, 12-16 January. (Oral)

Hobbins MT, McNally AL, Sarmiento DP, and Verdin JP (2019), Drought in Africa: Understanding and exploiting the demand perspective using a new evaporative demand reanalysis. *European Meteorological Society Annual Meeting*, Copenhagen, Denmark, 9-13 September. (Poster)

Hobbins MT, Dewes CF, Hoell A, Jayanthi H, McNally AL, Sarmiento DP, Shukla S, and Verdin JP (2019), Developing and exploiting a new global reanalysis of evaporative demand for global food-security assessments and drought monitoring. *99th American Meteorological Society Annual Meeting*, Phoenix, AZ, 6-10 January. (Oral)

Hobbins MT, Blakeley SL, Dewes CF, Harrison LS, Husak GJ, Jayanthi H, McNally AL, Sarmiento DP, Shukla S, and Verdin JP (2018), Opportunities for demand perspectives on drought: Updates on a global, daily evaporative demand reanalysis. *FEWS NET Science Partners meeting*, Washington, D.C., 12 December. (Oral)

Hobbins MT, Harrison LS, Blakeley SL, Dewes CF, Husak GJ, Shukla S, Jayanthi H, McNally AL, Sarmiento DP, and Verdin JP (2018), Drought in Africa: Understanding and exploiting the demand perspective using a new evaporative demand reanalysis. Abstract GC21D-1121, *2018 Fall Meeting, AGU*, Washington, D.C., 10-14 December. (Poster)

Hobbins MT, Hoell A, and Newman M (2018), On the causes and predictability of flash drought. *NOAA-Physical Sciences Division Improving Forecasts of Extremes on Subseasonal to Seasonal Time Scales workshop*, Boulder, CO, 9 November. (Oral)

Hobbins MT, Barsugli JJ, Dewes CF, Huntington JL, Lukas JJ, McEvoy DJ, Rangwala I, Ray AJ, and Yocum HM (2018), The Evaporative Demand Drought Index (EDDI): Updates and performance in the 2017 Northern Great Plains drought. *16th Annual Climate Prediction Applications Science Workshop*, Fargo, ND, 22-24 May. (Oral)

Hobbins MT, Dewes CF, Huntington JL, McEvoy DJ, Rangwala I, Ray AJ, and Yocum HM (2018), The Evaporative Demand Drought Index (EDDI): An emerging drought early warning and monitoring tool. *Great Plains Grasslands Summit*, Denver, CO, 10-11 April. (Poster)

Hobbins MT, Hughes MA, Mahoney KM, and Zamora RJ (2018), Too much water and too little: Meet EDDI, the Evaporative Demand Drought Index. *National Water Center Technology Showcase*, Tuscaloosa, AL, 27 March. (Poster)

Hobbins MT, Barsugli JJ, Dewes CF, Huntington JL, Lukas JJ, McEvoy DJ, Morton CG, Rangwala I, Ray AJ, Smith C, Wood AW, and Yocum HM (2018), The Evaporative Demand Drought Index (EDDI): Early warning and monitoring of drought from the demand side. *NOAA-Physical Sciences Division webinar*, Boulder, CO, 14 March. (Webinar)

Hobbins MT, Dewes CF, McEvoy DJ, Shukla S, Harrison LS, Blakeley SL, McNally AL, and Verdin JP (2018), A new global reference evapotranspiration reanalysis forced by MERRA2: Opportunities for famine early warning, drought attribution, and improving drought monitoring.

98th American Meteorological Society Annual Meeting, Austin, TX, 7-11 January. (Poster)

Hobbins MT (2017), A global reference evapotranspiration service for the FEWS NET Science Community: Derivation, FEWS applications, next steps. *FEWS NET Science Update Meeting: Agro-Climatology for Food Security Assessment*, Washington, D.C., 6-8 September. (Oral)

Hobbins MT, Barsugli JJ, Dewes CF, Rangwala I, Ray AJ, Yocum HM, Webb RS, and Pulwarty RS (2017), Evaporative demand and drought: Dynamics and opportunities in early warning and monitoring. *NOAA-Physical Sciences Division flash seminar*, Boulder, CO, 6 June. (Oral)

Hobbins MT, Ray AJ, Yocum HM, McEvoy DJ, Huntington JL, Rangwala I, Dewes CF, and Lukas JJ (2017), R2O of the Evaporative Demand Drought Index: The physical basis for a new early warning and monitoring index for drought and engagement with stakeholders. *15th Annual Climate Prediction Applications Science Workshop*, Anchorage, AK, 2-4 May. (Oral)

Hobbins MT, McEvoy DJ, Huntington JL, Ray AJ, Yocum HM, Rangwala I, Dewes CF, and Lukas JJ (2017), The Evaporative Demand Drought Index (EDDI): A new drought monitoring and early warning tool. *97th American Meteorological Society Annual Meeting*, Seattle, WA, 22-26 January. (Oral)

Hobbins MT, Shukla S, McNally AL, McEvoy DJ, Huntington JL, Husak GJ, Funk CC, Senay GB, Verdin JP, Jansma T, and Dewes CF (2016), What role does evaporative demand play in driving drought in Africa? Abstract GC43F-02, *2016 Fall Meeting, AGU*, San Francisco, CA, 12-16 December. (Oral)

Hobbins MT, McEvoy DJ, Huntington JL, Wood AW, Morton CG, Verdin JP, and Ray AJ (2016), The Evaporative Demand Drought Index: A new early warning and monitoring index for drought. *National Weather Service National Climate Services Meeting*, Silver Spring, MD, 9-12 May. (Poster)

Hobbins MT (2016), A global reference evaporative demand reanalysis for FEWS NET: A drought monitoring and early warning tool. *FEWS NET Science Update Meeting: Agro-Climatology for Food Security Assessment*, Santa Barbara, CA, 5-7 April. (Oral)

Hobbins MT, McEvoy DJ, Huntington JL, Wood AW, Morton CG, Verdin JP, and Ray AJ (2016), The Evaporative Demand Drought Index: A new early warning and monitoring index for drought. *14th Climate Predictions Applications Science Workshop*, Burlington, VT, 22-24 March. (Poster)

Hobbins MT, McEvoy DJ, Huntington JL, Wood AW, Morton CG, and Verdin JP (2016), EDDI examines the current California drought: Early warning and monitoring of agricultural and hydrologic drought with the new Evaporative Demand Drought Index. *96th American Meteorological Society Annual Meeting*, New Orleans, LA, 10-14 January. (Oral)

Hobbins MT, McEvoy DJ, Huntington JL, Wood AW, Morton CG, and Verdin JP (2015), The current California drought through EDDI's eyes: Early warning and monitoring of agricultural and hydrologic drought with the new Evaporative Demand Drought Index. Abstract H34D-03, *2015 Fall Meeting, AGU*, San Francisco, CA, 14-18 December. (Oral)

Hobbins MT, McEvoy DJ, and Huntington JL (2015), The California Drought through the eyes of EDDI (the Evaporative Demand Drought Index). *40th Climate Diagnostics and Prediction Workshop*, Denver, CO, 26-29 October. (Oral)

Hobbins MT, McEvoy DJ, Huntington JL, Wood AW, and Verdin JP (2015), Evaporative Demand Drought Index (EDDI): The physical basis. *CIRES Science Rendezvous*, Boulder, CO, 1 May. (Poster)

Hobbins MT, McEvoy DJ, Huntington JL, Verdin JP, and Wood AW (2015), Monitoring the California Drought with a novel drought index: The Evaporative Demand Drought Index (EDDI). *AGU Chapman Conference: California Drought: Causes, Impacts, and Policy*, Irvine, CA, 20-22 April. (Poster)

Hobbins MT, McEvoy DJ, Huntington JL, Wood AW, and Verdin JP (2015), The physical basis of the Evaporative Demand Drought Index. *95th American Meteorological Society Annual Meeting*, Phoenix, AZ, 4-8 January. (Poster)

Hobbins MT, McEvoy DJ, Huntington JL, Wood AW, and Verdin JP (2014), The Evaporative Demand Drought Index: The physical basis. Abstract H41B-0799, *2014 Fall Meeting, AGU*, San Francisco, CA, 15-19 December. (Poster)

Hobbins MT (2014), A global reference ET service for FEWS NET: Goals, tasks, and uses. *FEWS NET Science Update Meeting: Putting Drought in Historical Context*, Boulder, CO, 19-20 November. (Oral)

Hobbins MT, Senay GB, and Verdin JP (2014), NOAA introduces its multi-generational reference evapotranspiration product. *ASABE International Symposium on Evapotranspiration: Challenges in Measurement and Modeling from Leaf to the Landscape Scale and Beyond*, Raleigh, NC, 7-10 April. (Oral)

Hobbins MT, Wood AW, McEvoy DJ, and Huntington JL (2014), An Evaporative Demand Drought Indicator (EDDI). *ASABE International Symposium on Evapotranspiration: Challenges in Measurement and Modeling from Leaf to the Landscape Scale and Beyond*, Raleigh, NC, 7-10 April. (Oral)

Hobbins MT (2014), What drives the spatial and temporal variability of evaporative demand across CONUS? *ASABE International Symposium on Evapotranspiration: Challenges in Measurement and Modeling from Leaf to the Landscape Scale and Beyond*, Raleigh, NC, 7-10 April. (Poster)

Hobbins MT, Geli HME, Lewis CS, Senay GB, and Verdin JP (2013), NOAA introduces its first-generation reference evapotranspiration product. Abstract H53E-1453, *2013 Fall Meeting, AGU*, San Francisco, CA, 9-13 December. (Poster)

Hobbins MT (2013), What drives spatial and temporal variability of evaporative demand across CONUS? A 1st-order, 2nd-moment variability analysis of potential evaporation. *33rd Annual AGU Hydrology Days*, Fort Collins, CO, 25-27 March. (Oral)

Hobbins MT, Wood AW, Werner K, and Streubel D (2012), The drivers of spatial and temporal variability of potential evaporation across CONUS: Laying poor parameterizations to rest with a first-order, second-moment variability analysis. Abstract H44A-06, *2012 Fall Meeting, AGU*, San Francisco, CA, 3-7 December. (Oral)

Verdin JP, **Hobbins MT**, and Senay GB (2012), A new reference evapotranspiration surface for the National Water Census community. Abstract H33P-08, *2012 Fall Meeting, AGU*, San Francisco, CA, 3-7 December. (Oral; written and presented by **Hobbins MT**)

Hobbins MT, Wood AW, Werner K, and Streubel D (2012), What drives the spatial and temporal variability of potential evaporation across CONUS and the Colorado River basin? *Utah State University Spring Runoff Conference*, Logan, UT, 3-4 April. (Oral)

Hobbins MT, Wood AW, and Werner K (2011), Improving drought monitoring and predictions using physically based evaporative demand estimates. Abstract H43H-1322, *2011 Fall Meeting, AGU*, San Francisco, CA, 5-9 December. (Poster)

Hobbins MT, Wood AW, Werner K, and Hogue TS (2011), Evapotranspiration estimation at the NOAA-NWS-Colorado Basin River Forecast Center: Operational challenges and research opportunities. *Western States Remote Sensing of ET Workshop*, Boise, ID, 12-13 October. (Poster)

Hobbins MT, Wood AW, and Werner K (2011), Examining the role of evaporative demand in drought monitoring. *NASA Workshop on Global Drought Monitoring*, Silver Spring, MD, 11-12 April. (Oral)

Hobbins MT, Streubel D, Wood AW, and Werner K (2011), Examining the spatio-temporal variability of potential evaporation across the conterminous US. *NASA/USDA Workshop on Evapotranspiration: An Essential Observation for Climate Understanding and Efficient Water Management*, Silver Spring, MD, 5-7 April. (Poster)

Hobbins MT, Streubel D, Werner K, and Brandon D (2011), Developing two long-term, daily datasets of evaporative demand across the conterminous US. *NASA/USDA Workshop on Evapotranspiration: An Essential Observation for Climate Understanding and Efficient Water Management*, Silver Spring, MD, 5-7 April. (Poster)

Hobbins MT, Streubel D, and Werner K (2011), Forecasting evaporative demand across the conterminous US. *NASA/USDA Workshop on Evapotranspiration: An Essential Observation for Climate Understanding and Efficient Water Management*, Silver Spring, MD, 5-7 April. (Oral)

Hobbins MT, Streubel D, and Werner K (2011), Forecasting evaporative demand across the conterminous US. *Utah State University Spring Runoff Conference*, Logan, UT, 29-30 March. (Oral)

Hobbins MT, Streubel D, and Werner K (2011), Forecasting evaporative demand across the conterminous US. *9th Annual Climate Prediction Applications Science Workshop*, Des Moines, IA, 1-4 March. (Oral)

Hobbins MT, Streubel D, Werner K, and Brandon D (2011), Developing two long-term, daily datasets of evaporative demand across the conterminous US. *91st American Meteorological Society Annual Meeting*, Seattle, WA, 22-27 January. (Poster)

Hobbins MT, Streubel D, Werner K, and Brandon D (2010), Two long-term, daily datasets of evaporative demand for the conterminous US. Abstract H31B-0981, *2010 Fall Meeting, AGU*, San Francisco, CA, 13-17 December. (Poster)

Hobbins MT, Dai A, Roderick ML, and Farquhar GD (2008), Parameterizing evaporative demand in the Palmer Drought Severity Index: Implications for Australia. Abstract H24A-08, *2008 Western Pacific Geophysical Meeting, AGU*, Cairns, Qld., Australia, 29 July-1 August. (Oral)

Hobbins MT, Farquhar GD, and Roderick ML (2007), The evaporation paradox, and the roles of dimming and stilling. *3rd Conference of the Gary Comer Abrupt Climate Change Fellowship*, Palisades, NY, 2-5 May. (Oral)

Hobbins MT, Farquhar GD, and Roderick ML (2007), Moving beyond ‘the simpler, the better.’ The dangers of parameterizing evaporative demand by temperature alone. *3rd Conference of the Gary Comer Abrupt Climate Change Fellowship*, Palisades, NY, 2-5 May. (Oral)

Hobbins MT, Farquhar GD, and Roderick ML (2007), Do temperature-based parameterizations of evaporative demand force overestimates of mid-latitude continental drying? *3rd Conference of the Gary Comer Abrupt Climate Change Fellowship*, Palisades, NY, 2-5 May. (Poster)

Hobbins MT, Roderick ML, and Farquhar GD (2006), Is the temperature-based parameterization of potential evapotranspiration in the Palmer Drought Severity Index forcing overestimates of mid-continental drying and drought? Abstract H24B-04, *2006 Fall Meeting, AGU*, San Francisco, CA, 11-15 December. (Oral)

Hobbins MT, Roderick ML, and Farquhar GD (2006), What are we talking about when we talk about drying? *17th Annual Australia New Zealand Climate Forum*, Canberra, ACT, Australia, 5-7 September. (Oral)

Hobbins MT, Farquhar GD, and Roderick ML (2006), Towards a more robust characterisation of Australian drought. *Bureau of Meteorology Workshop on Climate Change Detection and Attribution*, Melbourne, Vic., Australia, 5 June. (Oral)

Hobbins MT, Roderick ML, and Farquhar GD (2006), Evaporation demand: Trends and dynamics. *Cooperative Research Centre for Greenhouse Accounting Final Science Meeting*, Melbourne, Vic., Australia, 29-30 May. (Oral)

Hobbins MT, Roderick ML, and Farquhar GD (2005), Using a half-century of misdiagnosis to make bad predictions about future drought trends. *Gary Comer Abrupt Climate Change Fellowship Roundtable*, Palisades, NY, 20-22 October. (Poster)

Hobbins MT, Ramírez JA, and Brown TC (2004), Developing a long-term, high-resolution, continental-scale, spatially distributed time-series of topographically corrected solar radiation. *24th Annual AGU Hydrology Days*, Fort Collins, CO, 10-12 March. (Oral)

Hobbins MT, Ramírez JA, and Brown TC (2004), Developing a homogeneous data series of pan evaporation across the conterminous United States for analysis of long-term trends. *24th Annual AGU Hydrology Days*, Fort Collins, CO, 10-12 March. (Oral)

Hobbins MT, Ramírez JA, and Brown TC (2003), Is pan evaporation decreasing across the conterminous United States? If it is, so what? *23rd Annual AGU Hydrology Days*, Fort Collins, CO, 31 March-2 April. (Oral)

Hobbins MT, Ramírez JA, and Brown TC (2001), Trends in regional evapotranspiration across the United States under the complementary relationship hypothesis. *21st Annual AGU Hydrology Days*, Fort Collins, CO, 2-5 April. (Oral)

Hobbins MT, Ramírez JA, and Brown TC (1999), The complementary relationship in regional evapotranspiration: The CRAE Model and the Advection-aridity approach. *19th Annual AGU Hydrology Days*, Fort Collins, CO, 16-20 August. (Oral). **WINNER: 19th AGU Hydrology Days Best M.S. Student Paper Award.**

Hobbins MT, Ramírez JA, and Brown TC (1999), Regional evapotranspiration and the complementary relationship: A comparison and evaluation of the CRAE model and the

Advection-aridity approach. Abstract H51A-14, *1999 Spring Meeting, AGU*, Boston, MA, 1-4 June. (Poster)

Co-author Presentations

Verdin JP, Senay GB, **Hobbins MT**, McEvoy DJ, McNally AL, and Magadzire T (2020), A retrospective view of the application of global gridded reference evapotranspiration. *American Meteorological Society Annual Meeting*, Boston, MA, 12-16 January. (Oral)

Turner W, Husak GJ, Jones C, Bonifacio R, and **Hobbins MT** (2019), Improved forecast of end-of-season crop water deficits. Abstract GC51G-1152, *2019 Fall Meeting, AGU*, San Francisco, CA, 9-13 December. (Poster)

Hoffmann D, Gallant A, Arblaster J, and **Hobbins MT** (2019), Flash drought in CMIP5 models. Abstract H13E-03, *2019 Fall Meeting, AGU*, San Francisco, CA, 9-13 December. (Oral)

Jackson DL, Hughes MA, Zamora R, Cifelli R, **Hobbins MT**, and Webb RS (2019), Assessing National Water Model and North American Land Data Assimilation soil moisture using National Soil Moisture Network data. *The 2019 National Soil Moisture Workshop: Expanding the Frontiers of Soil Moisture Measurements and Applications*, Manhattan, KS, 22-24 May. (Poster)

Hughes MA, Jackson DL, Sparrow K, Salas F, Glaudemans M, Zamora R, **Hobbins MT**, Cifelli R, Webb RS, Meng J, Mo K, and DeWitt D (2018), Application of the National Water Model for Drought Monitoring. *Prototype Product Webinar*, Boulder, CO, 24 April. (Webinar)

Jackson DL, Hughes MA, Zamora RJ, Cifelli R, **Hobbins MT**, and Webb RS (2018), Characteristics of National Water Model and North American Land Data Assimilation System soil moisture climatological distributions in the Mediterranean climate of the California Russian River basin. *98th American Meteorological Society Annual Meeting*, Phoenix, AZ, 6-10 January. (Poster)

Husak GJ, Shukla S, Peterson P, Funk CC, and **Hobbins MT** (2018), Investigating the inputs to SPEI and their importance in identifying agroclimatic hazards. *FEWS NET Science Partners meeting*, Washington, D.C., 12 December. (Oral)

Hughes MA, Jackson DL, Zamora RJ, Cifelli R, **Hobbins MT**, Salas F, Sparrow K, Webb RS, DeWitt DG, and Colohan P (2018), Development of prototype National Water Model soil moisture products for drought monitoring. Abstract H41P-2341, *2018 Fall Meeting, AGU*, Washington D.C., 10-14 December. (Poster)

Husak GJ, Shukla S, Funk CC, and **Hobbins MT** (2018), Investigating the inputs to SPEI and their importance in identifying agroclimatic hazards. Abstract GC21D-1127, *2018 Fall Meeting, AGU*, Washington, D.C., 10-14 December. (Poster)

McEvoy DJ, **Hobbins MT**, Brown TJ, VanderMolen KA, and Wall TU (2018), The Evaporative Demand Drought Index: Research and applications for wildland fire management. *Predictive Services Winter Meeting*, Meridian, ID, 4-6 December. (Oral)

Rangwala I, **Hobbins MT**, Smith LL, Senay GB, Barsugli JJ, and Dewes CF (2018), EDDI and LERI: A tale of two emerging drought indices. *Earth Lab Incubator*, Boulder, CO, 30 November. (Oral)

McEvoy DJ, **Hobbins MT**, Brown TJ, VanderMolen KA, Wall TU, Huntington, JL, Svoboda MD (2018), The Evaporative Demand Drought Index: Research and applications for wildland fire management. *FIRESCOPE Fall Meeting*, 8 November. (Oral, Invited)

McEvoy DJ, **Hobbins MT**, Brown TJ, VanderMolen KA, Wall TU, Huntington JL, and Svoboda MD (2018), The Evaporative Demand Drought Index: Research and applications for wildland fire management. *Advanced Fire Environment Learning Unit Fall Webinar*, Reno, NV, 7 November. (Webinar)

McEvoy DJ, **Hobbins MT**, Brown TJ, VanderMolen KA, Wall TU, Huntington JL, and Svoboda MD (2018), Establishing relationships between drought and wildfire danger indices for improved wildfire risk management. *Nevada Water Resources Association Fall Symposium*, Reno, NV, 25 September. (Oral, Invited)

Rangwala I, Smith LL, Senay GB, Barsugli JJ, Kagone S, and **Hobbins MT** (2018), Landscape Evaporative Response Index (LERI): High-resolution monitoring of evapotranspiration across the contiguous US. *2018 Mountain Climate Conference (MTNCLIM 2018)*, Gothic, CO, 16-21 September (Poster)

McEvoy DJ, **Hobbins MT**, and Shukla S (2018), Evaporative Demand Drought Index: Monitoring and seasonal predictions. *The Burning Desert: A Workshop on Drought Recovery*, Phoenix, AZ, 11 September. (Oral)

McEvoy DJ, Brown TJ, Huntington JL, Wall TU, VanderMolen KA, **Hobbins MT**, and Svoboda MD (2018), Establishing relationships between drought and wildfire danger indices for improved wildfire risk management. *Desert Research Institute webinar*, Reno, NV, 4 June. (Webinar)

Hughes MA, Jackson DL, Zamora RJ, Cifelli R, **Hobbins MT**, Webb RS, Mo K, Meng J, DeWitt DG, Colohan P, Salas F, and Sparrow K (2018), Development of prototype National Water Model soil moisture products for drought monitoring. *16th Annual Climate Prediction Applications Science Workshop*, Fargo, ND, 22-24 May. (Oral)

Rangwala I, Barsugli JJ, Smith LL, Senay GB, Dewes CF, **Hobbins MT**, and Kagone S (2018), Landscape Evaporative Response Index (LERI): High-resolution monitoring of evapotranspiration across the contiguous US. *16th Annual Climate Prediction Applications Science Workshop*, Fargo, ND, 22-24 May. (Poster)

Hughes MA, Zamora RJ, Jackson DL, **Hobbins MT**, Cifelli R, Webb RS, DeWitt DG, and Colohan P (2018), Development of prototype National Water Model products for drought monitoring. *CIRES Science Rendezvous*, Boulder, CO, 18 May. (Poster)

Rangwala, I, Barsugli JJ, Smith LL, Senay GB, Dewes CF, and **Hobbins MT** (2018), Landscape Evaporative Response Index (LERI): A high-resolution monitoring of deviations in evaporative potential across the conterminous US. *CIRES Science Rendezvous*, Boulder, CO, 18 May. (Poster)

Brown TJ, McEvoy DJ, Wall TU, and **Hobbins MT** (2018), Connecting drought and wildfire. *American Meteorological Society 12th Fire and Forest Meteorology Symposium*, Boise, ID, 15-17 May. (Oral) <https://ams.confex.com/ams/33AF12F4BG/videogateway.cgi/id/47446?recordingid=47446>

McEvoy DJ, Brown TJ, Huntington JL, Wall TU, VanderMolen KA, **Hobbins MT**, and Svoboda MD (2018), Update: Establishing relationships between drought and wildfire danger indices for improved wildfire risk management. *California FIRESCOPE*, 9 May. (Oral)

Hughes MA, Jackson DL, Zamora RJ, Cifelli R, **Hobbins MT**, Webb RS, Mo K, Meng J, DeWitt DG, Colohan P, Salas F, and Sparrow K (2018), Development of prototype National Water Model products for drought monitoring. *North American Drought Monitor Forum*, Calgary, AB, Canada, 1-3 May. (Oral)

McEvoy DJ, Wall TU, Brown TJ, Huntington JL, **Hobbins MT**, and Svoboda MD (2018), Establishing relationships between drought and wildfire danger indices for improved wildfire risk management. *98th American Meteorological Society Annual Meeting*, Austin, TX, 7-11 January. (Oral)

Harrison LS, Blakeley SL, **Hobbins MT**, Dewes CF, Funk CC, Shukla S, Peterson P, and Husak GJ (2018), Drivers of atmospheric demand during African droughts. *98th American Meteorological Society Annual Meeting*, Austin, TX, 7-11 January. (Poster)

McEvoy DJ, Shukla S, **Hobbins MT**, Husak GJ, Huntington JL, Funk CC, Macharia D, and Verdin JP (2018), Examining the value of global seasonal reference evapotranspiration forecasts to support FEWS NET's food insecurity outlooks. *98th American Meteorological Society Annual Meeting*, Austin, TX, 7-11 January. (Poster)

Harrison LS, Blakeley SL, **Hobbins MT**, Dewes CF, Funk CC, Shukla S, and Husak GJ (2017), Drivers of atmospheric demand during African droughts. Abstract GC33B-1069, *2017 Fall Meeting, AGU*, New Orleans, LA, 11-15 December. (Poster)

Shukla S, McEvoy DJ, **Hobbins MT**, Husak GJ, Huntington JL, Funk CC, Verdin JP, and Macharia D (2017), Examining the value of global seasonal reference evapotranspiration forecasts to support FEWS NET's food insecurity outlooks. Abstract PA11B-0211, *2017 Fall Meeting, AGU*, New Orleans, LA, 11-15 December. (Poster)

Rangwala I, Dewes CF, **Hobbins MT**, Raleigh M, Fish TW, and Barsugli JJ (2017), Hydroclimate analysis for the Wind River Indian Reservation as relevant to water resources and impacts from climate extremes. *Wind River Drought Preparedness Project Workshop*, Fort Washakie, Wind River Indian Reservation, WY, 14 November. (Oral)

Rangwala I, Dewes CF, **Hobbins MT**, and Barsugli JJ (2017), Potential evapotranspiration discussions. *USGS North Central Climate Science Center Evapotranspiration Workshop*, Fort Collins, CO, 7-8 September. (Oral)

Rangwala I, **Hobbins MT**, and Lukas JJ (2017), Evaporative Demand Drought Index (EDDI): Tracking the “atmospheric demand” side of drought for monitoring and early warning. *Western Water Assessment / National Integrated Drought Information System Webinar*, Boulder, CO, 11 May. (Webinar) <https://cirescolorado.adobeconnect.com/a1166535166/p114r3ibhbe/?proto=true>

Dewes CF, Rangwala I, **Hobbins MT**, and Barsugli JJ (2017), Assessing drought risk under climate change in the US Great Plains via evaporative demand from downscaled GCM projections. *15th Annual Climate Prediction Applications Science Workshop*, Anchorage, AK, 2-4 May. (Poster)

Dewes CF, Rangwala I, Barsugli JJ, **Hobbins MT**, and Kumar S (2017), Drought risk assessment under climate change is sensitive to methodological choices for the estimation of evaporative demand. *NOAA-Physical Sciences Division flash seminar*, Boulder, CO, 18 April. (Oral)

Palmer CK, Osborne HD, and **Hobbins MT** (2017), Using FRET for drought mitigation. *97th American Meteorological Society Annual Meeting*, Seattle, WA, 22-26 January. (Poster)

Dewes CF, Rangwala I, **Hobbins MT**, and Barsugli JJ (2016), Assessing drought risk under climate change in the US Great Plains via evaporative demand from downscaled GCM projections. Abstract H21D-1425, *2016 Fall Meeting, AGU*, San Francisco, CA, 12-16 December. (Poster)

Osborne HD, Palmer CK, and **Hobbins MT** (2016), Using FRET for drought mitigation. Abstract H21D-1430, *2016 Fall Meeting, AGU*, San Francisco, CA, 12-16 December. (Poster)

Shukla S, **Hobbins MT**, McEvoy DJ, Husak GJ, Dewes CF, McNally AL, Huntington JL, Funk CC, and Verdin JP (2016), Monitoring and forecasting reference evapotranspiration for food security assessments. Abstract H14B-04, *2016 Fall Meeting, AGU*, San Francisco, CA, 12-16 December. (Oral)

Rangwala I, **Hobbins MT**, Dewes CF, Lukas JJ, and McEvoy DJ (2016), EDDI drought indicator: Development and outreach. *Western Water Assessment Stakeholder Meeting*, Boulder, CO, 24 October. (Oral)

Dewes CF, Rangwala I, **Hobbins MT**, Barsugli JJ, and Kumar S (2016), Uncertainties in drought risk assessment under climate change because of differences in methodological choices for the estimation of evaporative demand. *2016 Mountain Climate Conference (MTNCLIM 2016)*, Leavenworth, WA, 18 October. (Poster)

McEvoy DJ, **Hobbins MT**, and Huntington JL (2016), Linking evaporative demand surplus and precipitation deficits to multi-year streamflow drought in California. *Yosemite Hydroclimate Meeting 2016*, Yosemite National Park, CA, 5-6 October. (Oral)

Rangwala I, Dewes CF, Fish TW, Barsugli JJ, and **Hobbins MT** (2016), Climate change and hydrological impacts in the Wind River Indian Reservation region. *Wind River Drought Preparedness Project Workshop*, Fort Washakie, Wind River Indian Reservation, WY, 26 July. (Oral)

Dewes CF, Rangwala I, Barsugli JJ, **Hobbins MT**, and Kumar S (2016), Drought risk under climate change: Evaluation of methodologies for a robust estimation of potential evapotranspiration. *CIRES Science Rendezvous*, Boulder, CO, 13 May. (Poster)

McEvoy DJ, **Hobbins MT**, and Huntington JL (2016), Analysis of the relationship between Nevada surface water deficits and the Evaporative Demand Drought Index. *Nevada Water Resources Association Annual Conference*, Las Vegas, NV, 29 February-3 March. (Oral)

Palmer CK, Osborne HD, **Hobbins MT**, Matusiewicz DP, and Melton FS (2016), National Weather Service Forecast Reference Evapotranspiration. *96th American Meteorological Society Annual Meeting*, New Orleans, LA, 10-14 January. (Poster)

Arsenault KR, Shukla S, **Hobbins MT**, and Peters-Lidard CD (2015), Evaluation and inter-comparison of modern-day reanalysis datasets over Africa and the Middle East. Abstract A13C-0341, *2015 Fall Meeting, AGU*, San Francisco, CA, 14-18 December. (Poster)

Dewes CF, Rangwala I, **Hobbins MT**, and Barsugli JJ (2015), Evaluating evaporative demand in CMIP5 models and its role in characterizing drought over the U.S. Northern Great Plains. Abstract H31F-1489, *2015 Fall Meeting, AGU*, San Francisco, CA, 14-18 December. (Poster)

- Husak GJ, **Hobbins MT**, Verdin JP, Peterson P, and Funk CC (2015), Using the SPEI to estimate food production in East Africa. Abstract H13G-1622, *2015 Fall Meeting, AGU*, San Francisco, CA, 14-18 December. (Poster)
- McEvoy DJ, Huntington JL, and **Hobbins MT** (2015), Optimization of evaporative demand models for seasonal drought forecasting. Abstract H31F-1498, *2015 Fall Meeting, AGU*, San Francisco, CA, 14-18 December. (Poster)
- McEvoy DJ, Huntington JL, and **Hobbins MT** (2015), Optimization of evaporative demand models for seasonal drought forecasting. *40th Climate Diagnostics and Prediction Workshop*, Denver, CO, 26-29 October. (Poster)
- Moorhead J, Gowda PH, **Hobbins MT**, Senay GB, Paul G, Marek T, and Porter D (2015), Accuracy assessment of NOAA gridded daily reference evapotranspiration for the Texas High Plains. *2015 World Environmental and Water Resources Congress*, Austin, TX, 17-21 May. (Oral)
- McEvoy DJ, Huntington JL, and **Hobbins MT** (2015), Analysis of the relationship between California surface water deficits and the Evaporative Demand Drought Index. *AGU Chapman Conference: California Drought: Causes, Impacts, and Policy*, Irvine, CA, 20-22 April. (Poster)
- Huntington JL, Daudert B, Morton CG, McEvoy DJ, Joros A, Abatzoglou JT, Hegewisch KC, Peterson A, VanSant D, Allen RG, Kilic A, **Hobbins MT**, and Verdin JP (2015), Cloud computing for drought monitoring with Google Earth Engine. *U.S. Drought Monitor Forum*, Reno, NV, 14-16 April. (Oral)
- McEvoy DJ, **Hobbins MT**, Huntington JL, Mejia JF, Hain CR, Anderson MC, and Verdin JP (2015), Exploring the use of physically based evaporative demand anomalies to improve seasonal drought prediction. *Nevada Water Resources Association Annual Conference*, Reno, NV, 26-29 January. (Poster). **2ND PLACE: student posters.**
- Xia Y, **Hobbins MT**, Mu Q, and Ek MB (2015), Evaluation of multimodel and multiscale NLDAS-2 evapotranspiration using different observations. *95th American Meteorological Society Annual Meeting*, Phoenix, AZ, 4-8 January. (Poster)
- McEvoy DJ, **Hobbins MT**, Huntington JL, Mejia JF, Wood AW, Hain CR, Anderson MC, and Verdin JP (2014), Exploring the use of physically based evaporative demand anomalies to improve seasonal drought prediction. Abstract H41B-0799, *2014 Fall Meeting, AGU*, San Francisco, CA, 15-19 December. (Oral, Invited)
- Ham C, **Hobbins MT**, Abt KL, and Prestemon JP (2014), Using the Evaporative Demand Drought Index and the Palmer Drought Severity Index to forecast the number of large wildland fires on federal lands. *Large Wildland Fires Conference*, Missoula, MT, 19-23 May. (Oral)
- Bardsley TJ, Wood AW, **Hobbins MT**, Kirkham T, Briefer L, Niermeyer J, Burian SJ, and Goharian E (2014), Planning for an uncertain future: Climate change and the Salt Lake City water supply. *CIRES Science Rendezvous*, Boulder, CO, 2 May. (Poster)
- McEvoy DJ, Huntington JL, **Hobbins MT**, and Wood AW (2014), Tracking flash drought with atmospheric feedbacks. *Great Basin Climate Forum 2014*, Reno, NV, 10 April. (Poster)
- Moorhead J, Gowda PH, Paul G, **Hobbins MT**, Senay GB, Marek T, and Porter D (2014), Accuracy assessment of NOAA's reference evapotranspiration maps in the Texas High Plains. *ASABE International Symposium on Evapotranspiration: Challenges in Measurement and Modeling from Leaf*

to the Landscape Scale and Beyond, Raleigh, NC, 7-10 April. (Poster)

McEvoy DJ, **Hobbins MT**, Huntington JL, and Wood AW (2014), Tracking flash drought with land-atmospheric feedbacks. *94th American Meteorological Society Annual Meeting*, Atlanta, GA, 3-6 February. (Oral) **2ND PLACE: student presentations.**

Snell HD, Palmer CK, Krone-Davis PA, Melton FS, and **Hobbins MT** (2013), National Weather Service Forecast Reference Evapotranspiration. Abstract H21A-1012, *2013 Fall Meeting, AGU*, San Francisco, CA, 9-13 December. (Poster)

Geli HME, Neale CMU, **Hobbins MT**, Verdin JP, and Senay GB (2013), Actual evapotranspiration using a two-source energy balance model and gridded reference ET_o. Abstract H21P-03, *2013 Fall Meeting, AGU*, San Francisco, CA, 9-13 December. (Oral)

Lim WH, Roderick ML, **Hobbins MT**, Wong SC, and Farquhar GD (2012), The energy balance of a US class-A pan. *Centre of Excellence for Climate System Science (CoECSS Workshop)*, Hobart, Tas., Australia, 25-27 September. (Poster)

Verdin JP, **Hobbins MT**, and Senay GB (2012), A new reference evapotranspiration surface for the National Water Census community. Abstract H33P-08, *2012 Fall Meeting, AGU*, San Francisco, CA, 3-7 December. (Oral)

Wood AW, Werner K, **Hobbins MT**, Clark M, and Verdin JP (2011), Science applications in the Colorado River basin to improve drought management. Abstract GC33C-04, *2011 Fall Meeting, AGU*, San Francisco, CA, 5-9 December. (Oral)

Lim WH, Roderick ML, **Hobbins MT**, Wong SC, Groeneveld PJ, Sun FB, and Farquhar GD (2011), A new equation for the aerodynamics of pan evaporation. Abstract H33A-1265, *2011 Fall Meeting, AGU*, San Francisco, CA, 5-9 December. (Poster)

Lim WH, Roderick ML, Farquhar GD, Wong SC, Groeneveld PJ, **Hobbins MT**, and Sun FB (2009), The aerodynamics of pan evaporation. Abstract H51B-0754, *2009 Fall Meeting, AGU*, San Francisco, CA, 14-18 December. (Poster)

Roderick ML, McVicar TR, Donohue RJ, Van Neil TG, Li L, Rayner DP, Ricciardulli L, Farquhar GD, and **Hobbins MT** (2008), Stilling and the terrestrial hydrologic cycle. Abstract GC42A-08, *2008 Fall Meeting, AGU*, San Francisco, CA, 15-19 December. (Oral)

Roderick ML, Farquhar GD, **Hobbins MT**, and Lim WH (2008), Evaporative demand and terrestrial water resources under a changing climate. *AGU Chapman Conference: Atmospheric Water Vapor and its Role in Climate*, Kailua-Kona, HI, 20-24 October. (Poster)

Farquhar GD, Roderick ML, and **Hobbins MT** (2008), Pan evaporation: An update. *Miniconference on Relative Humidity, Earth Temperature and Climate Change*, Lamont-Doherty Earth Observatory of Columbia University, Palisades, NY, 23-24 June. (Oral)

Farquhar GD, **Hobbins MT**, Roderick ML, and Rotstayn LD (2007), PenPan: A general tool for the attribution of changing pan evaporation. Abstract H33B-1259, *2007 Fall Meeting, AGU*, San Francisco, CA, 10-14 December. (Poster)

Roderick ML, Farquhar GD, and **Hobbins MT** (2005), Climate change: Wetter or drier? *Ecological Society of Australia Annual Conference*, Brisbane, Qld., Australia, 29 November-2 December. (Oral)

Brown TC, **Hobbins MT**, and Ramírez JA (2005), Where our water supply originates. *2005 American Water Resources Association Conference*, Seattle, WA, 7-10 November. (Oral)

Farquhar GD, Roderick ML, and **Hobbins MT** (2005), Evaporative demand and climate change. *Gary Comer Abrupt Climate Change Fellowship Roundtable*, Palisades, NY, 20-22 October. (Oral)