

CURRICULUM VITAE
Michael H. Young, Ph.D., P.G.

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Education:

1995 - Ph.D., Soil and Water Science (Soil Physics/Hydrology), Univ. of Ariz., Tucson, AZ
1986 - M.S., Geological Sciences (Hydrogeology), Ohio University, Athens, OH
1983 - B.A., Geology (cum laude with honors), Hartwick College, Oneonta, NY

Employment:

2010-present **Senior Research Scientist and Associate Director for Environmental Research (2010 – 2020)**, Bureau of Economic Geology, Jackson School of Geosciences, Univ. of Texas at Austin, TX
2003-2010 **Deputy and Acting Executive Director**, Division of Hydrologic Sciences, Desert Research Institute, Las Vegas, NV
2000-2010 **Assist./Associate/Research Professor**, Desert Research Institute, Las Vegas, NV
1998-2000 **Senior Research Scientist**, School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, GA
1996-1998 **Assistant Research Scientist**, Department of Soil, Water and Environmental Science, University of Arizona, Tucson, AZ
1990-1996 **Research Specialist (Senior)**, Department of Soil, Water and Environmental Science, University of Arizona, Tucson, AZ
1991-1996 **Principal/Hydrogeologist**, GeoSystems Analysis, Tucson, AZ
1988-1990 **Hydrogeologist**, C.C. Johnson & Malhotra, Silver Spring, MD
1986-1988 **Hydrogeologist/Project Manager**, U.S. Nuclear Regulatory Comm., Wash., DC.

Awards and Certifications:

Joseph C. Walter Jr. Excellence Award of the Jackson School of Geosciences, 2017
Elected Fellow, Geological Society of America, 2016
Elected Fellow, Soil Science Society of America, 2016
Nominated for Excellence in Reviewing Award, Water Resources Research, 1995 – 1996
Outstanding Research Staff Award for College of Agriculture, University of Arizona, 1994
Member Gamma Sigma Delta Honor Society, 1992
Nominated for John Christopher Hartwick Award, 1982
Certified Environmental Manager - State of Nevada, No. 1766 (inactive)
Professional Geologist – State of Texas, No. 12363
Registered Geologist - State of Georgia, No. 1494
Registered Geologist - State of Arizona, No. 26532
Certified Professional Geologist - State of Virginia, No. 728

Services (ongoing):

Graduate Studies Committee, Jackson School of Geosciences, UT-Austin, 2010 – present
Graduate Studies Committee, Energy and Earth Resources Program, UT-Austin, 2014 – present
Co-lead, Focused Research Group on Critical Zone, CSDMS program, 2017 - present
Member, Soil Systems and Critical Zone Processes, AGU, 2012 – present
Member, National Academies, Geoscience Briefing Consortium, 2015 – present
Member, USDOE Performance Assessment Review Team, Hanford Tanks, 2020
Consulting Editor, Vadose Zone Journal, 2016 – 2023

Services (previous):

Founding Co-Director, International Soil Modeling Consortium, 2016 – 2019 (now *ex officio*)
Member (Chair 2017), Soil Physics and Hydrology Mentoring Committee, SSSA, 2015 – 2017
Editor, Vadose Zone Journal, 2013 – 2015
Member, SSSA-AGU Partnership Committee (S682.1), SSSA, 2014 – 2016
Liaison between GSA Hydrogeology Division and SSSA, GSA, 2014 – 2016
Member, Critical Needs Working Group, American Geosciences Institute, 2015 – 2016
Member, Soil Physics Division Executive Committee, SSSA, 2013 – 2015
Member, Joint Technical Program Committee, Geological Society of America, 2013 - 2015
Founding Chair, Soils and Soil Processes Interdisciplinary Interest Group, GSA, 2013 – 2015
Steering Committee Member, Hydropedology Working Group, ACS 837, 2002 – 2014
Member, Technical Planning Committee for Environmental Geosciences, AAPG Int'l Conference and Exposition, Cartagena, Colombia, 2013
Member, Technical Review Panel, Division of Computational, Environment and Life Sciences, Argonne National Labs, 2013
Co-Editor, Vadose Zone Journal, 2010 – 2012
Associate Editor, Vadose Zone Journal, 2002 – 2010
Associate Editor, Soil Science Society of America Journal, 2008 – 2010
Elected S-1 Technical Chair, Soil Science Society of America, 2010-2011
Graduate Faculty, Hydrologic Sciences Program, University of Nevada Reno, 2000 – 2012
Associate Graduate Faculty, Dept. Geosciences, Univ. of Nevada Las Vegas, 2003 – 2012
Member, Am. Nuclear Society Standards Committee, 2.17 and 2.9, 2008 – 2012
Member, S-1 Early Career Award Committee, Am. Soc. Agron, 2006 – 2009 (Chair, 2008, 2009)
Member, Kirkham Award Committee, Am. Society Agronomy, 2006 – 2007 (Chair, 2007)
Lead Proposal Writer, Multi-State Research Project, CSREES, W-2188, 2009
Technical Committee Chair, CSREES, W-188, 2002 – 2003
Member, Vadose Zone Committee, Am. Geophysical Union, 1998 – 2012 (Chair 2002-2004)
Faculty Senate, Desert Research Institute, 2001 – 2004
Faculty Senate Secretary, Desert Research Institute, 2002 – 2003
Member: Am. Geophys. Union, Soil Sci. Soc. Am., Am. Soc. for Agron., Geol. Soc. of America

Technical reviewer (last 5 years): National Science Foundation, Water Resources Research, J. American Water Resources Association, Vadose Zone J., Soil Science Society of America J., J. Contaminant Hydrology, J. Ecohydrology, Hydrol. Processes, Soil and Tillage Res., Hydrology and Earth System Sci.

Special Session/Conference Organizer (selected):

2019: organizer: Induced Seismicity Issues in Southern Mid-continent of the US. Groundwater Protection Council Annual Meeting, OK City, OK.

2018: co-organizer (with Baatz, van der Ploeg and Vereecken): International Soil Modeling Consortium, 2nd international meeting, Wageningen, The Netherlands.

- 2016: co-organizer (with Illangasekare and Jones): Modeling Energy and Mass Transfer Processes at the Soil-Atmospheric Interface. Soil Sci Society Am. Meetings, Phoenix, AZ
- 2016: co-organizer (with Harrison, Percy, Vereecken, Caldwell, Balogh, Schulz): Beneath Da Vinci's Feet: The Multidisciplinary World of Soil Science. GSA National Meetings, Denver, CO.
- 2015: co-organizer (with Caldwell, McDonald, Harrison): Hillslope Dynamics: Integrating Soils, Hydrology, and Climatic Processes to Understand Weathering and Sediment Transport on Drainage Basin Slopes, GSA National Meetings, Baltimore, MD.
- 2014: co-organizer (with Driese, Caldwell, Stonestrom): Soil as a Controller and Integrator of Geological Processes. GSA National Meetings, Vancouver, CA.
- 2013: co-organizer (with Vereecken, Bertsch and Troch); Soil Mediated Drivers of Coupled Biogeochemical and Hydrological Processes Across Scales, Chapman Conference sponsored by AGU, Tucson, Arizona, September, 2013.
- 2013: co-organizer (with Hopmans and Or); Soil Systems and Critical Zone Processes – Integrating Life Support Functions across Disciplines, Monte Veritas, Ascona, Switzerland, March 2013.
- 2013: co-organizer (with Garcia, Stonestrom, Bedford); Impacts of Land-Use Change and Disturbances on Unsaturated-Zone Ecohydrology and Process Characterization, GSA Nat. Meetings, Denver, CO.
- 2013: co-organizer (with Sarmiento): Environmental Geosciences Symposium and Plenary, AAPG International Conference and Exposition, Cartagena, Colombia.
- 2013: co-organizer (with Caldwell): Soil as a Mediator of Geological Processes, GSA South-Central meeting, Austin, TX.
- 2012: co-convener (with Harter, Green, Rudolph); Non-point source fluxes in the vadose zone and groundwater. AGU Fall Meeting, San Francisco, CO.
- 2012: co-convener (with Ochsner and Horton): Impacts of Bioenergy Crops on Water Quantity and Quality. SSSA Meeting, Cincinnati, OH.
- 2011: co-convener (with Scanlon, Wilcox, et al.), Past Land Use Changes on Water Resources: An Analog for Assessing Effects of Proposed Bioenergy Crops. AGU Fall Meeting.
- 2009: co-convener (with Jianting Zhu), Landscapes in Semiarid and Arid Environments: A Hydrological and Ecological Perspective, AGU Fall Meeting.
- 2008: co-convener (with David Robinson and Ron Ryel), Soil, Water and Plants: Linking physical processes in water controlled ecosystems, Ecol. Soc. America.
- 2006: co-convener (with Henry Lin and Brad Wilcox), Bridging Hydrology, Soil Science and Ecology: Hydropedology and Ecohydrology, AGU Fall Meeting.
- 2003: co-convener (with Ger de Rooij), Subsurface fluid, energy, and solute transport processes: concepts, models, and observations, Spring Meeting, AGU, Nice France.
- 2000-2004, 2008, 2009: Environmental vadose zone hydrology, AGU Fall Meeting.
- 1998: co-convener (with Jan Hopmans), Scaling issues in vadose zone hydrology, AGU Fall Meeting.

Refereed Publications (in process) (* - student):

- Thompson, J., R. Kreitler, M.H. Young. 2020. Exploring Groundwater Recoverability in Texas: Maximum Economically Recoverable Storage. Texas Water Journal. Submitted.
- Arciniega-Esparza, S., A. Hernández-Espriú, J.A. Breña-Naranjo, M.H. Young, A. Pedrozo-Acuña. 2020. A Multivariate Outlier Detection Approach for Water Footprint Assessments in Shale Formations: Case Eagle Ford Play (Texas). Environ. and Earth Sci. Re-submitted.
- Pierre, J.P. J. R. Andrews, M.H. Young, A.Y. Sun, B.D. Wolaver. 2020. Projected Landscape Impacts from Oil and Gas Development Scenarios in the Permian Basin, USA. Env. Mgmt. In press.

Refereed Publications (completed) (* - student):

- 89 Devitt, D.A., M.H. Young, J.P. Pierre. 2020. Assessing the potential for greater solar development in West Texas, USA. Energy Strategy Review. Vol. 29. doi.org/10.1016/j.esr.2020.100490.

- 88 Abolt, C.J., M.H. Young. 2020. High-resolution mapping of spatial heterogeneity in ice wedge polygon geomorphology near Prudhoe Bay, Alaska. *Nature Sci. Data*. v. 7, no. 87 doi.org/10.1038/s41597-020-0423-9.
- 87 Abolt, C.J., M.H. Young, A.L. Atchley, D.R. Harp, and E.T. Coon. 2020. Thawing ice wedges in the high Arctic stabilized by geomorphic feedbacks. *J. Geophys Res: Earth Surface*. 125, e2019JF005349. doi.org/10.1029/2019JF005349
- 86 Fatichi, S., D. Or, R. Walko, H. Vereecken, M.H. Young, T. Ghezzehei, T. Hengl, S. Kollet, N. Agam, R. Avissar. 2020. Soil Structure – An Important Omission in Earth System Models. *Nature Communications*. v.11 no 522. doi.org/10.1038/s41467-020-14411-z
- 85 Hernández-Espriú, A., Wolaver, B. D., Arciniega-Esparza, S., Scanlon, B. R., Young, M. H., Nicot, J.-P., Macías-Medrano, S., and Breña-Naranjo, J. A., 2019, A screening approach to improve water management practices in undeveloped shale plays, with application to the transboundary Eagle Ford Formation in northeast Mexico: *J. of Env Mgmt*, v. 236, p. 146–162, doi.org/10.1016/j.jenvman.2018.11.123.
- 84 Caldwell, T.G., T. Bongiovanni, M. Cosh, T. Jackson, A. Colliander, C.J. Abolt, T. Larson, B.R. Scanlon, M.H. Young. 2019. The Texas Soil Observation Network: A comprehensive soil moisture dataset for remote sensing and land surface model validation. *Vadose Zone J.* doi: 10.2136/vzj2019.04.0034. In press, available in First Look.
- 83 Weintraub, S., A.N. Flores, W.R. Wieder, D. Sihi, C. Cagnarini, D.R.P. Gonçalves, M.H. Young, L. Li, Y. Olshansky, R. Baatz, P.L. Sullivan, P. M. Groffman. 2019. Leveraging Environmental Research and Observation Networks to Advance Soil Carbon Science. *J. Geophys. Res.: Biogeosciences*. 124. doi.org/10.1029/2018JG00495.
- 82 *Abolt, C.J., M.H. Young, A. Atchley, and C. Wilson. 2019. Rapid machine learning-based extraction and measurement of ice wedge polygons in airborne lidar data. *The Cryosphere*. doi.org/10.5194/tc-13-237-2019.
- 81 *Abolt, C.J., M.H. Young, A. Atchley, and D. Harp. 2018. Microtopographic control on the ground thermal regime in ice wedge polygons. *The Cryosphere*. 12:1957–1968. doi.org/10.5194/tc-12-1957-2018.
- 80 Baatz, R, Sullivan, P.R., Li, L., Weintraub, S.R., Loescher H.W., Mirtl, M., Groffman, P.M., Young, M. H., and others, 2018, Steering operational synergies in terrestrial observation networks: opportunity for advancing Earth system dynamics modelling: *Earth System Dynamics*, 9:593-609, http://doi.org/10.5194/esd-9-593-2018.
- 79 Caldwell, T.G., M. Cosh, T. Bongiovanni, *C. Halley, M.H. Young 2018. Field and Laboratory Evaluation of the CS655 Soil Water Content Sensor. *Vadose Zone J.* doi.org/10.2136/vzj2017.12.0214.
- 78 Arciniega-Esparza, S., J.A. Breña-Naranjo, A. Hernández-Espriú, A. Pedrozo-Acuña, B.R. Scanlon, J.-P. Nicot, M.H. Young, B.D. Wolaver. 2017. Baseflow recession analysis in a large shale play: climate variability and anthropogenic alterations mask effects of hydraulic fracturing. *J. Hydro*. 533:160-171. doi.org/10.1016/j.jhydrol.2017.07.059.
- 77 Pierre, J.P., M.H. Young, B.D. Wolaver, J.R. Andrews, C.L. Breton. 2017. Time series analysis of energy production and associated landscape fragmentation in the Eagle Ford shale play. *Env. Mgmt*. 60:852-866. doi:10.1007/s00267-017-0925-1.
- 76 Young, M.H., J.H. Andrews, T.G. Caldwell, K. Saylam. 2017. Airborne Lidar and Aerial Imagery to Assess Potential Habitats for the Desert Tortoise (*Gopherus agassizii*). *Rem. Sensing*. 9:458. doi:10.3390/rs9050458.
- 75 Young, M.H., L.F. Fenstermaker, J. Belnap. 2017. Monitoring water content dynamics of biological soil crusts. *J. Arid Env*. 142:41-49. doi: 10.1016/j.jaridenv.2017.03.004.

- 74 *Anderson, J.S., D.D. Romanak, C. Yang, J. Lu, S.D. Hovorka, M.H. Young. 2017. Gas source attribution techniques for assessing leakage at geologic CO₂ storage sites: Evaluating a CO₂ and CH₄ soil gas anomaly at the Cranfield CO₂-EOR site. *Chem Geology* 454:93-104. doi: 10.1016/j.chemgeo.2017.02.024.
- 73 *Abolt, C.J., M.H. Young, T.G. Caldwell. 2017. Numerical modeling of ice-wedge polygon geomorphic transition. *Permafrost and Periglacial Processes*. 28:347-355. doi: 10.1002/ppp.1909.
- 72 Vereecken H., A. Schnepf, J.W. Hopmans, M. Javaux, D. Or, T. Roose, J. Vanderborght, M.H. Young, et al. 2016. Modelling Soil Processes: Key challenges and new perspectives. *Vadose Zone J.* 15:5, doi:10.2136/vzj2015.09.0131.
- 71 Kelleners, T.J., J. Koonce, R. Shillito, J. Dijkema, M. Berli, M.H. Young, J.M. Frank, W.J. Massman. 2016. Numerical modeling of coupled water flow and heat transport in soil and snow. *Soil Sci Soc. Am. J.* doi:10.2136/sssaj2015.07.0279.
- 70 Sueki, S., K. Acharya, J. Healey, R. Liebert, J. Huntington, R. Jasoni, M.H. Young. 2015. Defoliation Effect of Tamarisk Biocontrol agent, *Diorhabda carinulata*, on Evapotranspiration and Groundwater. *Ecohydrology*. doi: 10.1002/eco.1604.
- 69 Zhu, J., D. Sun, M.H. Young, T.G. Caldwell, F. Pan. 2015. Shrub Spatial Organization and Partitioning of Evaporation and Transpiration in Arid Environments. *Ecohydrology*. doi: 10.1002/eco.1576.
- 68 Skaggs, T., M.H. Young, J. Vrugt. 2015. Reproducible research in vadose zone sciences. *Vadose Zone J.* doi:10.2136/vzj2015.06.0088.
- 67 Chen, L., L. Xiang, M.H. Young, J. Yin, Z. Yu, M.Th. van Genuchten. 2015. Optimal Parameters for the Green-Ampt Infiltration Model under Rainfall Condition. *J. Hydrol. Hydromech.* 63:93-101, doi: 10.1515/johh-2015-0012.
- 66 Karagunduz, A., M.H. Young., K.D. Pennell. 2015. Influence of Surfactants on Unsaturated Flow and Solute Transport. *Water Resour. Res.* 51:1977-1988. doi: 10.1002/2014WR015845
- 65 *Pierre, J.P., *C.J. Abolt, M.H. Young. 2015. Impacts from above-ground activities in the Eagle Ford Shale play on landscapes and hydrologic flows, La Salle County, Texas. *Env. Mgmt.* 55:1262-1275. doi: 10.1007/s00267-015-0492-2.
- 64 *Meyer, N.A., D.O. Breecker, M.H. Young, M.E. Litvak. 2014. Simulating the Role of Vegetation in Formation of Pedogenic Carbonate. *Soil Sci Soc. Am. J.* doi:10.2136/sssaj2013.08.0326.
- 63 Wolaver, B.D., C.E. Cook, D.L. Sunding, S.F. Hamilton, B.R. Scanlon, M.H. Young, X. Xu, R.C. Reedy. 2014. Potential Economic Impacts of Environmental Flows for Central Texas Freshwater Mussels. *J. Am Water Res. Assoc.* doi: 10.1111/jawr.12171.
- 62 Young, M.H., R. L. Green, M. McCullough, D.A. Devitt, L. Wright*, B. Vanderford, S.A. Snyder. 2014. Field-Scale Monitoring of Pharmaceutical Compounds Applied to Active Golf Courses by Recycled Water. *J. Environ. Qual.* 43:658–670. doi:10.2134/jeq2013.07.0299.
- 61 Yang, C., S.D. Hovorka, M.H. Young, R. Trevino. 2014. Geochemical sensitivity to CO₂ leakage: Detection in potable aquifers at carbon sequestration sites. *Greenhouse Gases: Science and Technology*. 4:1-16. DOI: 10.1002/ghg.1406.
- 60 Vrugt, J.A., D. Or, M.H. Young. 2013. *Vadose Zone Journal: The First Ten Years*. *Vadose Zone J.* doi:10.2136/vzj2013.10.0186.
- 59 Scanlon, B.R., R.C. Reedy, I.J. Duncan, W. F. Mullican, M.H. Young. 2013. Controls and Trends in the Water Footprint of Thermoelectric Generation: Case Study Texas, U.S. *Env. Sci. and Tech.* doi: 10.1021/es4029183.
- 58 Devitt, D.A., L. Wright* and M. H. Young. 2013. Water and salt balances of turfgrass and bare soil irrigated with recycled water in an arid environment. *Agron. J.* 105:1051–1060. doi:10.2134/agronj2012.0126.

- 57 Zhang, Y., C. Papelis, M.H. Young, M. Berli. 2013. Challenges in the application of fractional-derivative models in capturing solute transport in porous media: Darcy-scale fractional dispersion and the influence of medium properties. *Math Prob. in Engin.* dx.doi.org/10.1155/2013/878097.
- 56 Caldwell, T.G., T. Wohling, M.H. Young, D.P. Boyle. E.V. McDonald. 2013. Characterizing disturbed desert soils using multiobjective parameter optimization. *Vadose Zone J.* doi: 10.2136/vzj2012.0083.
- 55 Yu, Z. W. Dong, M.H. Young, Y. Li, T. Yang. 2013. On evaluating characteristics of solute transport in the arid vadose zone. *Groundwater.* doi: 10.1111/gwat.12026.
- 54 *Caldwell, T.G., M.H. Young, E.V. McDonald, J. Zhu. 2012. Soil heterogeneity in arid shrublands: biotic and abiotic processes. *Water Resour. Res.* doi:10.1029/2012WR011963.
- 53 Chief, K., M.H. Young, D.S. Shafer. 2012. Low-intensity, fire-induced changes of soil structure and hydraulic properties in a woodland-rangeland ecosystem. *Soil Sci. Soc. Am. J.* 76:1965–1977. doi:10.2136/sssaj2012.0072.
- 52 *Wright, L., D.A. Devitt, M.H. Young, J. Gan, B. Vanderford, S.A. Snyder, M. McCullough, and L. Dodgen. 2012. Fate and transport of Thirteen pharmaceutical and personal care products in a controlled and irrigated turfgrass system. *Agron. J.* 104:1244-1254.
- 51 Zhu, J., M.H. Young, J. Osterberg. 2011. Impacts of riparian zone plant water use on temporal scaling of groundwater systems. *Hydrol. Proc.* DOI: 10.1002/hyp.8241.
- 50 Li, Y., K. Acharya., M.C. Stone, Z. Yu, M.H. Young, D.S. Shafer, J. Zhu, K. Gray, A. Stone, L. Fan, J.J. Warwick. 2011. Spatiotemporal patterns in nutrient loads, nutrient concentrations, and algal biomass in Lake Taihu, China. *Lake and Reservoir Management.* 27:298-309.
- 49 Wilcox, B.P., L. Turnbull., M.H. Young, J. Williams, S. Ravi, M.S. Seyfried, D.R. Bowling, R.L. Scott, M.J. Germino, T.G. Caldwell, J. Wainwright. 2011. Invasion of shrublands by exotic grasses: ecohydrological consequences in cold vs. warm deserts. *Ecohydrology.* DOI: 10.1002/eco.247.
- 48 Zhu, J., M.H. Young, J. Healey, R. Jasoni, J. Osterberg. 2011. Interference of river level changes on riparian zone evapotranspiration estimates from diurnal groundwater level fluctuations. *Journal of Hydrology.* 403:381-389.
- 47 Wilcox, B.P, M.G. Sorice and M.H. Young. 2011. Dryland ecohydrology in the Anthropocene. *Geography Compass.* 5:112-127, doi: 10.1111/j.1749-8198.2011.00413.x
- 46 Devitt, D.A., L.F. Fenstermaker, M.H. Young, B. Conrad*, M. Baghzouz, B.M. Bird. 2010. Evapotranspiration of mixed shrub communities in phreatophytic zones of the Great Basin. *J. Ecohydrology.* doi: 10.1002/eco.169.
- 45 Young, M.H., D.A. Robinson, R.J. Ryel. 2010. Introduction to coupling soil science and hydrology with ecology: Toward integrating landscape processes. *Vadose Zone J.* doi: 10.2136/vzj2010.0011.
- 44 *Labahn, S.K., J.C. Fisher, M.H. Young., E. Robleto, D.P. Moser. 2010. Microbially-mediated aerobic and anaerobic degradation of acrylamide in a western U.S. irrigation canal. *J. Env. Qual.* doi:10.2134/jeq2009.0318.
- 43 Acharya, K., C. Schulman*, M.H. Young. 2010. Physiological response of *Daphnia magna* to Linear Anionic Polyacrylamide: Ecological Implications for Receiving Waters. *Water Air Soil Pollut.* DOI 10.1007/s11270-010-0344-x.
- 42 *Baghzouz, M., D.A. Devitt, L. F. Fenstermaker and M.H. Young. 2010. Monitoring vegetation phenological cycles in two different semi-arid environmental settings using a ground-based NDVI system: A potential approach to improve satellite data interpretation. *Remote Sens.* 2010, 2(4), 990-1013; doi:10.3390/rs2040990.
- 41 Chen, L. J. Zhu, M. H. Young, and R.B. Susfalk. 2009. An integrated approach to modeling solute transport in streams and canals with applications. *J. Hydrology.* 378:128–136.

- 40 Zhu, J. and M.H. Young. 2009. Uncertainty and sensitivity of evapotranspiration estimates for semi-arid shrublands. *J. Am. Water Resour. Assoc.* 45(3):641-653. DOI:10.1111/j.1752-1688.2009.00312.x.
- 39 Kavouras, I.G., V. Etyemezian, G. Nikolich, M.H. Young, J. Gillies, D.S. Shafer. 2009. A New technique for characterizing the efficacy of fugitive dust suppressants. *J. Air Waste Mgmt. Assoc.* 59:603-612.
- 38 Zhu, J., M.H. Young. 2009. Sensitivity of unlined canal seepage to hydraulic properties of polyacrylamide-treated soil. *Soil Sci. Soc. Am. J.* doi: 10.2136/sssaj2008.0261.
- 37 Young, M.H., T.G. Caldwell*, D.G. Meadows*, L.F. Fenstermaker. 2009. Variability of soil physical and hydraulic properties at the Mojave Global Change Facility, Nevada: Implications for water budget and evapotranspiration. *J. Arid Env.* doi:10.1016/j.jaridenv.2009.01.015.
- 36 *Caldwell, T.G., E.V. McDonald, M.H. Young. 2009. The seedbed microclimate and active revegetation of disturbed lands in the Mojave Desert. *J. Arid Env.* doi:10.1016/j.jaridenv.2008.12.008.
- 35 Young, M.H., E.A. Moran*, Z. Yu, J. Zhu, D.M. Smith. 2009. Reducing saturated hydraulic conductivity of soil with polyacrylamide. *Soil Sci. Soc. Am. J.* 73:13-20.
- 34 *Caldwell, T.G., M.H. Young, J. Zhu and E.V. McDonald. 2008. The spatial structure of hydraulic properties from canopy to interspace in the Mojave Desert. *Geophysical Res. Letters.* vol. 35, L19406, doi:10.1029/2008GL035095.
- 33 Wang, X-P., Y. Cui, Y.-X. Pan, X.-R. Li, Z. Yu, M.H. Young. 2008. Effects of rainfall characteristics on infiltration and redistribution patterns in revegetation-stabilized desert ecosystems. *J. Hydrology.* 358:134–143.
- 32 *Yin, J., M. H. Young, Z. Yu. 2008. Effects of paleoclimate and time-varying canopy structures on paleowater fluxes. *J. Geophys. Res.- Atmospheres.* 113. D06103. doi:10.1029/2007JD009010.
- 31 Devitt, D.A., M.H. Young, M. Baghzouz*, B.M. Bird. 2008. Surface temperature, heat loading, and spectral reflectance of artificial turfgrass. *Journal of Turfgrass and Sports Surface Science.* 83:68-82.
- 30 Young, M.H., G.S. Campbell, J. Yin*. 2008. Correcting dual-probe heat-pulse readings for ambient temperature fluctuations. *Vadose Zone J.* 7:22–30.
- 29 Wang, X.-P., M. H. Young, Z. Yu, and Z.-S. Zhang. 2007. Long-term effects of restoration on soil hydraulic properties in revegetation-stabilized desert ecosystems. *Geophys. Res.Lett.* doi:10.1029/2007GL031725.
- 28 Young, M. H., H. Lin, and B. P. Wilcox. 2007. Introduction to Special Section on Bridging Hydrology, Soil Science, and Ecology: Hydropedology and Ecohydrology, *Geophys. Res. Lett.*, 34, L24S20, doi:10.1029/2007GL031998.
- 27 *Meadows, D.G., M.H. Young, E.V. McDonald. 2007. Influence of surface age on infiltration mechanisms of desert pavements, Mojave Desert. *Catena.* 72:169-178.
- 26 Zhu, J., M.H. Young, M.Th. van Genuchten. 2007. Upscaling schemes and relationships for Gardner and van Genuchten hydraulic functions for heterogeneous soils. *Vadose Zone J.* 6:186-195.
- 25 Shafer, D.S., M.H. Young, S.F. Zitzer, T.G. Caldwell, E.V. McDonald. 2007. Impacts of interrelated biotic and abiotic processes during the past 125,000 years of landscape evolution in the northern Mojave Desert, Nevada, U.S.A. *J. Arid Env.* 69:633-657.
- 24 Chen, L. and M.H. Young. 2006. Green-Ampt model for sloping surfaces. *Water Resour. Res.*, 42:7, W07420.
- 23 Caldwell, T.G., E.V. McDonald, M.H. Young. 2006. Soil disturbance and unsaturated hydraulic response at the National Training Center, Ft. Irwin, California. *J. Arid Env.* 67:456-472.
- 22 Young, M.H., W. Albright, K.F. Pohlmann, G. Pohl, W.H. Zachritz, S. Zitzer, D.S. Shafer, I. Nester, L. Oyelowo. 2006. Incorporating parametric uncertainty in the design of alternative landfill covers in arid regions. *Vadose Zone J.* 5:742-750.

- 21 *Meadows, D.G., M.H. Young, E.V. McDonald. 2006. Estimating clay content and saturated hydraulic conductivity on clay-rich surfaces using GPR. *Vadose Zone J.* 5:720-730.
- 20 *Meadows, D.G., M.H. Young, E.V. McDonald. 2005. A laboratory method for determining the unsaturated hydraulic functions of individual soil peds. *Soil Sci. Soc. Am. J.* 69 807-815.
- 19 Young, M.H., E.V. McDonald, T.C. Caldwell, S.G. Benner, D.G. Meadows*. 2004. Hydraulic properties of a desert soil chronosequence in the Mojave Desert, USA. *Vadose Zone J.* 3:956-963.
- 18 Pennell, K.D., A. Karagunduz*, M.H. Young. 2004. Impacts of surfactant adjuvants on pesticide availability and transport in soils. *Pesticide Decon. and Detox.* 863:231-245.
- 17 *Obrist, D., P.S.J. Verburg, M.H. Young, J.S. Coleman, D.E. Schorran, J.A. Arnone III. 2003. Quantifying the effects of phenology on ecosystem evapotranspiration in planted grassland mesocosms using EcoCELL technology. *Ag. Forest Met.* 118 (3-4): 173-183.
- 16 Rasmussen, T.C., K.G. Haborak*, M.H. Young. 2003. Estimating aquifer hydraulic properties using sinusoidal pumping at the Savannah River site, South Carolina, USA. *Hydrogeology J.* 11:466-482.
- 15 Dahan, O., E.V. McDonald, M.H. Young. 2003. Development of a flexible TDR probe for deep vadose zone monitoring. *Vadose Zone J.* 2:270-275.
- 14 Young, M.H., T.C. Rasmussen, F.C. Lyons, K.D. Pennell. 2002. Optimized system to improve pumping rate stability during aquifer tests. *Ground Water.* 40:629-637.
- 13 Young, M.H., A. Karagunduz*, J. Simunek, K.D. Pennell. 2002. A modified upward infiltration method for determining soil hydraulic properties. *Soil Sci. Soc. Am. J.* 66:57-64.
- 12 *Karagunduz, A., K.D. Pennell, M.H. Young. 2001. Influence of a nonionic surfactant on the hydraulic properties of unsaturated soils. *Soil Sci. Soc. Am. J.* 65:1392-1399.
- 11 Brown, P.W., C.F. Mancino, M.H. Young, T.L. Thompson, P.J. Wierenga, D.M. Kopec. 2001. Penman-Monteith crop coefficients for use with desert turf systems. *Crop Sci.* 41:1197-1206.
- 10 *Zou, Z.-Y., M.H. Young, Z. Li, P.J. Wierenga. 2001. Estimation of unsaturated hydraulic properties from a deep infiltration experiment. *J. Hydrology.* 242:26-42.
- 9 *Nelson, N.T., M.L. Brusseau, T.D. Carlson, M.H. Young, G.R. Johnson, M.S. Costanza, P.J. Wierenga. 1999. The partitioning tracer method for the in-situ measurement of water content. *Water Resour. Res.* 35:3699-3707.
- 8 Young, M.H., P.J. Wierenga, A.W. Warrick, L.L. Hofmann, S.A. Musil. 1999. Variability of water front velocities during a field-scale infiltration experiment. *Water Resour. Res.* 35:3079-3087.
- 7 Warrick, A.W., M.H. Young, P.J. Wierenga. 1998. Probabilistic analysis of monitoring systems for detecting subsurface contaminant plumes. *Ground Water.* 5:894-900.
- 6 Warrick, A.W., P.J. Wierenga, M.H. Young, S.A. Musil. 1998. Diurnal fluctuations of tensiometric readings due to surface temperature changes. *Water Resour. Res.* 34:2863-2869.
- 5 *Yu C., A.W. Warrick, M.H. Conklin, M.H. Young, M. Zreda. 1997. Simplified calibration of time domain reflectometry for soil moisture measurement. *Water Resour. Res.* 33:2417-2421.
- 4 Young, M.H., P.J. Wierenga, C.F. Mancino. 1997. Monitoring near-surface soil water storage in a turfgrass environment using TDR and weighing lysimetry. *Soil Sci. Soc. Am. J.* 61:1138-1146.
- 3 Young, M.H., J.B. Fleming, P.J. Wierenga, A.W. Warrick. 1997. Rapid laboratory calibration of TDR probes using upward infiltration. *Soil Sci. Soc. Am. J.* 61:707-712.
- 2 Young, M.H., P.J. Wierenga, C.F. Mancino. 1996. Large weighing lysimeters for water use and deep percolation studies. *Soil Science.* 161:491-497.
- 1 Gee, G.W., P.J. Wierenga, B.J. Andraski, M.H. Young*, M.J. Fayer, M.L. Rockhold. 1994. Variations in water balance and recharge at three western desert sites. *Soil Sci. Soc. Am. J.* 58:63-72.

Book Chapters:

- 8 Reible, D., M.H. Young, D. Bullard. 2017. Water Quality and Quantity, in: The Academy of Medicine, Engineering and Science of Texas, 2017. Environmental and community impacts of shale development in Texas. Austin, TX: The Academy of Medicine, Engineering and Science of Texas. doi: 10.25238/TAMESTstf.6.2017.
- 7 Aravena, J.E. Aravena, M. Berli, M. Menon, T.A. Ghezzehei, A. K. Mandava, E.E. Regentova, N.S. Pillai, M.H. Young, P.S. Nico, S.W. Tyler. 2013. Synchrotron X-Ray Microtomography—New Means to Quantify Root Induced Changes of Rhizosphere Physical Properties. *In: Soil–Water–Root Processes: Advances in Tomography and Imaging*. SSSSA Special Publication 61. S.H. Anderson and J.W. Hopmans, editors. SSSA, 5585 Guilford Rd., Madison, WI 53711, USA. Doi:10.2136/sssaspecpub61.
- 6 Young, M.H., W. Albright, K.F. Pohlmann, G. Pohll, W.H. Zachritz, S. Zitzer, D.S. Shafer, I. Nester, L. Oyelowo. 2006. Designing alternative landfill covers using parametric uncertainty analysis. in *Unsaturated Soils 2006*, pp. 682-694. G.A. Miller et al. (eds.). ASCE Special Publication 147. ISBN: 0-7844-0802-5.
- 5 Shafer, D.S., Young, M.H., Zitzer, S.F., McDonald, E.V., T. G. Caldwell. 2006. Coupled environmental processes in the Mojave Desert and implications for ET covers as stable landforms. in *Unsaturated Soils 2006*, pp. 718-729. Geotechnical Special Publication 147 (eds., Miller, G.A., Zapata, C.E., Houston, S.L., and D.G. Fredlund), American Society of Civil Engineers. ISBN: 0-7844-0802-5.
- 4 Young, M.H., L. Papelis. 2003. Vadose Zone and Groundwater Protection. In. *Encyclopedia of Water Science*. B. Stewart and B. Howell. Ed. Marcel Dekker, New York. pp. 1008-1012.
- 3 Levitt, D.G., M.H. Young. 2003. Hygroscopic Water. In. *Encyclopedia of Water Science*. B. Stewart and B. Howell. Ed. Marcel Dekker, New York. pp. 923-927.
- 2 Young, M.H., J.Y. Sisson. 2002. Tensiometry. In. *Methods of soil analysis, Part 4*, SSSA Book Series: 5, J. Dane and C. Topp, editors. Am. Soc. Agron., Madison, WI. pp. 575-609.
- 1 Young, M.H. 2002. Piezometry. In. *Methods of soil analysis, Part 4*, SSSA Book Series: 5, J. Dane and C. Topp, editors. Am. Soc. Agron., Madison, WI. pp. 547-574.

Software and Published Datasets

- 3 Abolt, C. J., & Young, M. H. 2020. High-resolution maps of ice wedge polygon occurrence and geomorphology. PANGAEA <https://doi.pangaea.de/10.1594/PANGAEA.910178>.
- 2 Abolt, C. J., M. H. Young, A. L. Atchley, and C. J. Wilson. 2019. CNN-watershed: A machine-learning based tool for delineation and measurement of ice wedge polygons in high-resolution digital elevation models. Zenodo repository: doi: 10.5281/zenodo.2554542.
- 1 Abolt, C. J., M. H. Young, A. L. Atchley, and D. R. Harp. 2018. Sensitivity analysis of ice wedge temperature to polygonal microtopography. Zenodo repository: doi: 10.5281/zenodo.1284604.

Other Publications:

- 36 *Bolhassani, B., Hovorka, S. D., Hosseini, S. A., Young, M. H., Anderson, J., and Yang, C. 2017. Model-based assessment of the site-specific cost of monitoring: *Energy Procedia*, v. 114, p. 5316-5319, <http://doi.org/10.1016/j.egypro.2017.03.1652>.
- 35 Young, M.H., S.G. Driese, P.J. Drohan. 2014. Soil and Soil Processes: A New Interdisciplinary Interest Group at GSA. *GSA Today*. Vol. 24, no. 4/5, page 52.
- 34 Vereecken, H., M.H. Young, P. Troch, P. Bertsch. 2014. Soil-mediated drivers of coupled biogeochemical and hydrological processes across scales. *EOS Transactions*. 14Jan2014. DOI:10.1002/2014EO020004.
- 33 Paine, J. G., Andrews, J. R., Saylam, K., Tremblay, T. A., Averett, A. R., Caudle, Tiffany, Meyer, T., and Young, M., 2013, Airborne lidar on the Alaskan North Slope: Wetlands mapping, lake volumes, and permafrost features: *The Leading Edge*, v. 32, no. 7, p. 798–805.

- 32 Chief, K., M.H. Young, B.F. Lyles, J. Healey, J. Koonce, E. Knight, E. Johnson, J. Mon, M. Berli, M. Menon, G. Dana. 2009. Scaling Environmental Processes in Heterogeneous Arid Soils: Construction of Large Weighing Lysimeter Facility. DRI Special Publication No. 41249.
- 31 Berli, M., L. Chen, and M. Young, 2008. Wildfire Effects on Watershed Hydrologic Processes: An Introduction for Hydraulic Engineers, Watershed Managers, and Planners. Desert Research Institute, DRI Publication No. 41243.
- 30 Chen, L. and M.H. Young. 2008. Some Physical Aspects and a New Modeling Approach for Rainfall Infiltration-Runoff Processes. DRI Publication No. 41246.
- 29 Susfalk, R.B., D. Sada, C. Martin, M.H. Young, (11 others). 2008. Evaluation of Linear Anionic Polyacrylamide (LA-PAM) Application to Water Delivery Canals for Seepage Reduction. DRI Publication No. 41245.
- 28 Young, M.H., T.G. Caldwell, J.J. Miller, G. Dalldorf. 2007. Hydraulic Characteristics of Soil Contributing to the Windmill Wash Detention Basin near Bunkerville, Nevada. DRI Publication No. 41240.
- 27 Susfalk, R.B., M.H. Young, D.M. Smith. 2007. Application Guidelines: Use of Granular, Linear Anionic Polyacrylamide (LA-PAM) in Water Delivery Canals for Seepage Control. DRI Publication No. 41239.
- 26 Young, M.H. 2007. (Editor) Results of Laboratory Experiments in Support of PAM-Related Research (with nine authors). DRI Publication No. 41237.
- 25 Zhu, J. M.H Young, M.E. Cablk. 2007. Uncertainty Analysis of Estimates of Ground-Water Discharge by Evapotranspiration for the BARCAS Study Area. DRI Publication No. 41234.
- 24 Young, M.H. T.G. Caldwell, D.G. Meadows, D.S. Shafer, S Zitzer, J.J. Miller, E.V. McDonald, J.O. Goreham, V. Etyemezian, G. Nikolich. 2007. Technical Report: Evaluation of Topical Application of Encapco Emulsion on Desert Soils. DRI Publication No. 41233.
- 23 Young, M.H. J.J. Tappen, G.C. Miller, S. Carroll, R.B. Susfalk. 2007. Initial Risk Characterization: Using Linear Anionic Polyacrylamide (LA-PAM) to Reduce Water Seepage from Unlined Water Delivery Canal Systems. DRI Publication No. 41226.
- 22 Meadows, D.G., M.H. Young, L. Fenstermaker. 2006. Technical Report: Geostatistical Analysis of Soil and Hydraulic Properties at MGCF. DRI Publication No. 41225.
- 21 Young, M.H., K. Adams, S. Mizell, L. Chen, T. Bullard, S. Grant. 2005. Assessment and Improvement of Hydraulic Characterization of Alluvial Fans to Support Estimates of Recharge and Initial Abstraction. DRI Publication No. 41218.
- 20 Young, M.H., W. Albright, W. Zachritz, D.S. Shafer, K.D. Pohlmann, M. Cablk, S. Zitzer, E.V. McDonald. 2004. Alternative Cover Design for Edwards Air Force Base, CA: Data Collection, Monte Carlo Modeling, and Design Sensitivity Analysis. DRI Publication No. 41192.
- 19 Shafer, D.S., M.H. Young, S. Zitzer, E.V. McDonald, T.G. Caldwell. 2004. Coupled environmental processes: Implications for landscape development in the northern Mojave Desert. DRI Publication No. 45203.
- 18 Young, M.H., B.F. Lyles, G. Dana. C.A. Cooper. 2003. Evaluation of infiltration through biocovers at the Outerloop RDF, Louisville, KY. DRI Publication No. 41187.
- 17 Young, M.H., K.D. Pohlmann. 2003. Analysis of Vadose Zone Monitoring Systems: Computer Simulation of water flux under conditions of variable vegetative cover; E-Area Disposal Trenches. DRI Publication No. 41188.
- 16 Amirtharajah, A., M.H. Young, K.D. Pennell, J.L. Steiner, D.S. Fisher, D.M. Endale. 2002. Field transport of a Cryptosporidium surrogate in small catchments used for grazing lands. Am. Water Works Assoc. Res. Found.
- 15 Young, M.H. C.A. Cooper, S. Sharpe, J.J. Miller, D.S. Shafer. 2002. Upward Advection: Dynamic simulation of vadose zone moisture flux.

- 14 Young, M.H. C.F. Mancino, P.J. Wierenga. 2000. Use of time domain reflectometry for measuring soil water content changes in turf. *Golf Course Management*. Nov:66-70.
- 13 Young, M.H., P.J. Wierenga, A.W. Warrick, L.L. Hofmann, S.A. Musil, M. Yao, C. Mai, B.R. Scanlon. 1999. Results of field studies at the Maricopa Environmental Monitoring Site, Arizona. NUREG/CR-5694, U.S. Nuclear Regulatory Commission, Washington, DC.
- 12 Young, M.H., A.W. Warrick, P.J. Wierenga, S.A. Musil, 1999. Comparing monitoring strategies at the Maricopa site, Arizona. NUREG/CR-5698, U.S. Nuclear Regulatory Commission, Washington, DC.
- 11 Young, M.H., Z-Y Zou, P.J. Wierenga. 1997. Results of lysimeter core infiltration study for characterizing unsaturated flow and transport. Task 1 Report. Submitted to NIEHS Superfund Research Group, University of Arizona, Tucson, AZ.
- 10 Vinson, J., P.J. Wierenga, R.G. Hills, M.H. Young. 1997. Flow and transport at the Las Cruces trench site: Experiment 2b. NUREG/CR-6437, U.S. Nuclear Regulatory Commission, Washington, DC.
- 9 Young, M.H., P.J. Wierenga, A.W. Warrick, L.L. Hofmann, S.A. Musil, B.R. Scanlon, T.J. Nicholson. 1996. Field testing plan for unsaturated zone monitoring and field studies. NUREG/CR-6462, U.S. Nuclear Regulatory Commission, Washington, DC.
- 8 Wierenga, P.J., R.G. Hills, M.H. Young, and J. Vinson. 1996. A field study for evaluating unsaturated zone flow and transport models. In Joint U.S. Geological Survey, U.S. Nuclear Regulatory Commission on research related to low-level radioactive waste disposal, May 4-6, 1993, National Center, Reston, VA, U.S. Geological Survey, Water Res. Inv. Report 95-4015. U.S. Govt. Printing Ofc. Washington, DC.
- 7 Young, M.H. 1995. Monitoring near-surface soil water loss with time domain reflectometry and weighing lysimeters. Ph.D. Dissertation. Dept. of Soil, Water and Env. Science, Univ. of Arizona.
- 6 Ankeny, M.D., M.H. Young, P.J. Wierenga, A.W. Warrick. 1995. Strategies and systems for monitoring the vadose zone at LLW and SDMP facilities. Task 1 report. Submitted to the U.S. Nuclear Regulatory Commission under Contract #NRC-04-95-046. Wash., D.C.
- 5 Wierenga, P.J., M.H. Young, G.W. Gee, R.G. Hills, T.J. Nicholson, R.E. Cady. 1993. Soil characterization methods for unsaturated low-level waste sites. NUREG/CR-5988, U.S. Nuclear Regulatory Commission, Washington, DC.
- 4 Wierenga, P.J., M.H. Young. 1991. Standard Operating Procedures and Quality Assurance Plan for NRC Contract 060231-A-B1. Flow and Transport Database and Modeling in Unsaturated Soils, University of Arizona, Tucson, AZ.
- 3 Shum, E., R.J. Starmer, M.H. Young. 1990. Environmental monitoring at low-level radioactive waste disposal facilities, NUREG-1388, U.S. Nuclear Regulatory Commission, Washington, DC.
- 2 Young, M.H. 1986. A comparative study to determine the effects of coal mining on the hydrology of small watersheds in southeastern Ohio, Master's Thesis, Ohio University, Athens, Ohio.
- 1 Young, M.H. 1972. It came from a cave. Unpublished Manuscript. 75pp.

Invited Lectures, Plenaries, Testimonies, Panels, Blogs

- 42 Young, M.H., P. Hennings, A. Savvaidis. 2019. TexNet / CISR – Monitoring and Analyzing Earthquake Activity in Texas. Presented to the Government of Colombia, invited by US Department of Commerce. Bogota, Colombia.
- 41 Young, M.H., B.R. Scanlon. 2019. Water-Energy Nexus in Texas. Presented to the Government of Colombia, invited by US Department of Commerce. Bogota, Colombia.
- 40 Young, M.H. 2019. Planet Texas 2050: Managing Water and Land Resources with Data and Technology. OLLI SAGE Lecture series, UT Austin, Austin, TX.
- 39 Kiesecker, J., M.H. Young. 2019. 'Energy sprawl' threatens Texas' wide-open spaces. Op-ed,

- Houston Chronicle. <https://www.houstonchronicle.com/opinion/outlook/article/Energy-sprawl-threatens-Texas-wide-open-14059919.php>
- 38 Young, M.H. 2018. Critical linkages between environment, energy resource development, and economics. OLLI SAGE Lecture series, UT Austin, Austin, TX
- 37 Young, M.H. 2018. Mid-century resilience in the face of climate extremes and population growth: Experiences from the Lone Star State. Desert Research Institute, Reno, NV. Invited.
- 36 Young, M.H., S. Pierce. 2018. Planet Texas 2050: Mid-century resilience in the face of climate extremes and population growth. Defense Advanced Research Projects Agency, Washington, DC. Invited
- 35 Young, M.H. 2018. Mid-century resilience in the face of climate extremes and population growth: Experiences from the Lone Star State. Les Rude Seminar Series, Hartwick College, Oneonta, NY. Invited.
- 34 Young, M.H., 2018. Addressing the interconnected issues of energy sprawl. Blog post. Cynthia and George Mitchell Foundation. <http://cgmf.org/blog-entry/306/Addressing-the-interconnected-issues-of-energy-sprawl.html>.
- 33 Young, M.H. 2018. How much water is in Texas? Blog Post. UT Austin, Planet Texas 2050 project. <https://medium.com/planetstexas2050/how-much-water-is-in-texas-1be46dda7203>.
- 32 Young, M.H., 2018, Update on TexNet Seismic Monitoring Program. Testimony provided to the Texas House Committee on Energy Resources. April 18, 2018.
- 31 Young, M.H., J.P. Pierre. 2017. Time Series Analysis of Energy Production and Associated Landscape Fragmentation in the Eagle Ford Shale Play. Presented at the South Texas Geological Society Meeting, San Antonio, TX. Invited.
- 30 Young, M.H., K. van Looy, H. Vereecken, M. van der Ploeg. 2017. Improving soil models by connecting scientific disciplines. CSDMS Annual Meeting, Boulder CO, Invited.
- 29 Young, M.H. T.G. Caldwell. 2017. Characterizing Soil and Landscape Attributes at Different Scales: Applications in Desert Ecosystems. Brazilian Soil Physics Meeting, Universidade de São Paulo, Brazil, June 2017.
- 28 Young, M.H. A. Savvaidis, P. Hennings, E. Rathje, J. Osmond. 2017. TexNet-CISR: An Integrated Response to Seismicity in Texas. AGI Critical Issues Program, April 2017. Invited.
- 27 Young, M.H., D. Reible, D. Bullard. 2016. The Water Side of Unconventionals. University of Houston Energy Symposium. Houston, TX. Invited.
- 26 Young, M.H. 2016. Field Experiences of a Geoscientist: The Fun Side of STEM. Presented to the 22nd Annual Meeting Texas Regional Collaboratives For Excellence in Science and Mathematics Teaching. Austin, TX. Invited.
- 25 Young, M.H., A. Savvaidis, P.H. Hennings, M. Blount, S.W. Tinker. 2016. TexNet and CISR: Integrated Seismicity Monitoring and Research In Texas. Webinar presented to the Texas Council of Governments, Austin, TX. Invited.
- 24 Young, M.H., A. Savvaidis, P.H. Hennings, E. Rathje. 2016. TexNet and CISR: Seismicity Monitoring and Research In Texas. Presented at the Industry Council on the Environment, Austin, TX. Invited.
- 23 Young, M.H., T.G. Caldwell, J.R. Andrews, D. Merkler, K. Saylam. 2016. Identifying species habitats in arid settings using remote sensing and geomorphic attributes. Presented at the FBI Laboratory, Quantico, VA. Invited.
- 22 Young, M.H., J.-P. Nicot, B. Wolaver, B.R. Scanlon, J.P. Pierre. 2015. Assessing Environmental Impacts from Energy Development in Texas, USA. Presented at Swiss Federal Institute of Technology, Zurich, Switzerland. Invited.
- 21 Young, M.H., H. Vereecken, D. Or, J. Vanderborght, A. Schnepf, J. Hopmans, M. Javaux, R. Kunkel, K van Looy. 2016. International Soil Modeling Consortium: Integrating Soil Processes into Earth Process Models. Presented to the Office of Science and Technology Policy, Soil Science

- Interagency Working Group, Washington, DC. Invited.
- 20 Young, M.H., A. Savvaidis, P.H. Hennings, E. Rathje. 2016. TexNet and CISR: Seismicity Monitoring and Research In Texas. Presented at the Austin Geological Society. Invited.
 - 19 Young, M.H., B.R. Scanlon, M. Walsh. 2015. Bureau of Economic Geology: Geologic Studies in the Permian Basin. Presented at the Permian Basin Petroleum Assoc. Annual Meeting, Midland, TX. Invited.
 - 18 Young, M.H., J.-P. Nicot, B.R. Scanlon, J.P. Pierre. 2015. Water/Land/Energy Nexus for Unconventional Energy in Texas. Presented at the Mexico Institute of Water Technology, Cuernavaca, Mexico. Invited.
 - 17 Young, M.H., J.-P. Nicot, B.R. Scanlon, J.P. Pierre. 2015. Water/Land/Energy Nexus in Texas. Presented at the special symposia "Reducing the Impact of Hydraulic Shale Fracturing and Natural Gas Drilling on Environment," Little Rock, AR. Invited.
 - 16 Young, M.H., J.-P. Nicot, B.R. Scanlon, J.P. Pierre. 2015. Water/Land/Energy Nexus for Unconventional Energy in Texas. Presented at the College of Agriculture and Human Sciences Symposium Series. Prairie View A&M University, TX. Invited
 - 15 Young, M.H., J.-P. Nicot, B.D. Wolaver. 2015. Baseline Testing for Unconventional Oil & Gas Development: Water and Land. Webinar presented to: North American Energy Ministerial Secretariat. September 2015. Invited.
 - 14 Young, M.H., J.-P. Nicot, B.R. Scanlon, J.P. Pierre. 2015. Understanding and Mitigating Environmental Impacts from Unconventional Energy Development in Texas. Invited Keynote lecture at 8th Annual Environmental Challenges and Innovations Conference, Texas Association of Environmental Professionals, Houston, TX.
 - 13 Young, M.H. 2015. From Athens to Austin: Field Experiences of a Geoscientist. Keynote lecture at Department of Geological Sciences 2015 Alumni Symposium, Ohio University, Athens, OH.
 - 12 Young, M.H., J.-P. Nicot, B.R. Scanlon. 2015. Understanding the Water/Land/Energy Nexus in Texas. Invited lecture at the Symposium: Reducing the Impact of Hydraulic Shale Fracturing and Natural Gas Drilling on Environments University of Arkansas at Little Rock. April, 2015.
 - 11 Young, M.H., J.-P. Nicot, B.R. Scanlon, J.P. Pierre. 2015. Water/Land/Energy Nexus for Unconventional Energy in Texas. Presented at the University of South Carolina, Department of Earth and Ocean Sciences Seminar Series.
 - 10 Young, M.H., J.-P. Nicot, B.R. Scanlon, J.P. Pierre. 2014. Water/Land/Energy Nexus for Unconventional Energy in Texas. Presented at the University of Minnesota, Biosystems Engineering Seminar Series.
 - 9 Young, M.H., J.-P. Nicot, B.R. Scanlon. 2014. Experiences in Texas: Water, Land and Unconventional Fossil Energy Exploration. Presented at the 79th North American Wildlife and Natural Resources Conference, Denver, CO. (Invited).
 - 8 Temples, T. and M.H. Young. 2013. Environmental Impacts of Hydraulic Fracturing – Truth or Fiction. Invited Plenary. AAPG International Conference and Exposition, Cartagena, Colombia.
 - 7 Young, M.H., J.-P. Nicot, B.R. Scanlon. 2013. Water/Land/Energy Nexus for Unconventional Energy in Texas. Presented at Argonne National Laboratories.
 - 6 Young, M.H. 2012. CO2 EOR in Texas: Research, Resources, and Opportunities. Presented to the Texas House Subcommittee on Energy Resources, June 2012.
 - 5 Young, M.H. 2012. Multi-scale characterization of arid soil properties for predicting landscape processes. Presented at New Mexico Tech, Hydrology seminar series. March 2012.
 - 4 Young, M.H. 2012. Energy from Unconventionals: New Hope, New Challenges. Presentation at Division of Earth and Life Studies, National Research Council, Washington, DC.
 - 3 Young, M.H. 2011. Multi-scale characterization of arid soil properties for predicting landscape processes. Texas A&M Scholars Program, College Station, TX.

- 2 Young, M.H., E.V. McDonald, T.G. Caldwell, D.G. Meadows, D.S. Shafer. 2006. Evolution of soil hydraulic properties on arid alluvial fans: Impacts on near-surface water resources. Hohai University, School of Hydraulic Eng., Nanjing, China.
- 1 Young, M.H. 1999. Comparison of alternative strategies for monitoring soil water conditions at disposal sites. Seminar series lecture at Penn State University, University Park, PA.

Conference and Symposia Presentations (with abstracts):

- 211 Young, M.H., J.P. Pierre, D.A. Devitt, F. Smith. 2019. Land impacts in West Texas from energy development. Presented at the Soil Science Society of America. San Diego, CA.
- 210 Pierre, J.P., M.H. Young, D.A. Devitt, F. Smith, J. Andrews. 2019. Landscape Alteration from Energy Development in the Greater Big Bend Region of Texas. Presented at the Soil Science Society of America. San Diego, CA.
- 209 Young, M.H., P. Hennings, A. Savvaidis. 2019. TexNet / CISR – Monitoring and Analyzing Earthquake Activity in Texas. Presented at the TCEQ Annual Trade Fair, Austin, TX.
- 208 Young, M.H. 2019. Holistic Fluid Management and Reporting in West Texas. Presented at the Annual Meeting of the Assoc. Am. State Geologists, Butte, MT.
- 207 *Gearon, J.H., M.H. Young. 2019. Geomorphic Controls on Shrub Canopy Size and Spacing of Creosote Bush, Northern Mojave Desert, USA. Presented at GSA National Meeting, Phoenix, AZ.
- 206 Young, M.H. 2019. Planet Texas 2050, a UT Austin Grand Challenge. Presented at the UT Energy Institute, Annual Energy Symposium, Austin, TX.
- 205 *Gearon, J.H., M.H. Young. 2018. Geomorphic Influence on Canopy Structure in Eldorado Valley, Nevada. Presented at AGU National Conference, Washington, DC.
- 204 *Abolt, C.A., M.H. Young, A. Atchley, D. Harp, E. Coon. 2018. Geomorphic Feedbacks Enhance the Stability of High-Centered Polygons. Presented at AGU National Conference, Washington, DC.
- 203 Young, M.H., J. Boak, R. Miller, M. Timmons, R. Mandel, N. Dunbar, P. Hennings, S. Ausbrooks. 2018. Regional Induced Seismicity Collaborative (RISC): Integrating Research Approaches in the Southern Midcontinent. AAPG National Conference, Salt Lake City, UT
- 202 Young, M.H., B. Wolaver, P.P. Pierre. 2018. Energy Sprawl in Trans-Pecos, Texas. Texas Lands Conservation Conference, Austin, TX.
- 201 Young, M.H., J. Boak, R. Miller, M. Timmons, R. Mandel, N. Dunbar, P. Hennings. 2018. Regional Induced Seismicity Collaborative (RISC): Integrating Research Approaches in the Southern Midcontinent. Oklahoma Seismicity Workshop, Oklahoma City, OK.
- 200 Young, M.H., J.-P. Nicot. 2017. Water-Related Topics in Energy Production. Presented at the Energy Institute Journalism Workshop, Austin, TX.
- 199 Young, M.H., A. Savvaidis, E. Rathje. 2017. Seismic Monitoring Program in Texas: Improving Emergency Response From Future Earthquakes. Presented at the Texas Emergency Management Conference, San Antonio, TX.
- 198 Young, M.H. J. Boak, R. Miller, M. Timmons, R. Mandel, N. Dunbar. 2017. Regional Induced Seismicity Collaborative (RISC): Integrating Research Approaches in the Southern Midcontinent. Presented at the Groundwater Protection Council Annual Meeting, Boston, MA.
- 197 Young, M.H. A. Savvaidis, P. Hennings, E. Rathje. 2017. TexNet and CISR: An Update on Monitoring and Understanding Seismicity in Texas. Groundwater Protection Council UIC Conference, Austin, TX
- 196 Uddemeri, V., M.H. Young, C. Abolt. 2017. Water Science Node – Forecasting Water Resilience along the New 100th Meridian. Presented at the South-Central regional meeting, Geological Society of America, San Antonio, TX.
- 195 *Abolt, C.J. M.H. Young, A.L. Atchley, D.R. Harp. 2017. Numerical investigations of microtopographic influence on the near surface thermal regime and thermokarst development in ice wedge polygons. Presented at the American Geophysical Union meetings, New Orleans,

LA.

- 195 Young, M.H. T.G. Caldwell, J.R. Andrews, K. Saylam. 2017. Airborne Lidar and Aerial Imagery to Assess Potential Burrow Locations for the Desert Tortoise (*Gopherus agassizii*). Presented at the European Geosciences Union Annual meeting, Vienna, Austria.
- 194 Savvaidis, A., Young, M. H., Tinker, S. W., Rathje, E. M., Frohlich, C. A., Walter, J., De Shon, H., Gale, J. F. W., Hennings, P., Eichhubl, P., Olson, J., Olson, H. C., Markman, A., and Kahlor, L. A., 2016. TexNet: A new, integrated seismic monitoring program in Texas (abs.): *Seismological Research Letters*, v. 87, no. 2B, p. 495.
- 193 Young, M.H., T.G. Caldwell, J.R. Andrews, D. Merkler, K. Saylam. 2016. Measuring Desert Terrain and Ecosystem Attributes Using Airborne Lidar and Imagery. Presented at the Soil Science Society of America National Meetings, Phoenix, AZ.
- 192 Young, M.H., J. Kipper, N. Ivicic, B.R. Scanlon, A. Savvaidis. 2016. Fusing Physical and Digital Collections into Geological Knowledge. Presented at the Conference on Challenges and Solutions for Integrated Management of Environmental, Health, and Community Impact Data Pertaining to the Oil and Gas Industry. National Science Foundation, Washington, DC.
- 191 Young, M.H., J.-P. Nicot, B.R. Scanlon, J.P. Pierre. 2016. Water/Land/Energy Nexus in Texas. Presented at the National Council for Science and Education, Washington, DC.
- 190 Young, M.H., H. Vereecken, D. Or, J. Vanderborght, A. Schnepf, J. Hopmans, M. Javaux, R. Kunkel, K van Looy. 2016. International Soil Modeling Consortium: Motivation, Goals and Status. Presented to the CEISS Global Water Cycles and World Water Resources. Austin, TX. Invited.
- 189 Young, M.H., J.P. Pierre. 2016. Landscape Impacts from Above-Ground Activities in the Eagle Ford Shale Play, La Salle County, Texas, Presented at the Environmental Connection Conference, International Erosion Control Association, San Antonio, TX.
- 188 Young, M.H., A. Savvaidis, P.H. Hennings, E. Rathje. 2016. TexNet and CISR: Seismicity Monitoring and Research In Texas. Presented at the Austin Geological Society. Invited.
- 187 Young, M.H., T.G. Caldwell, J.R. Andrews, D. Merkler, K. Saylam. 2016. Identifying species habitats in arid settings using remote sensing and geomorphic attributes. Presented at the GSA National Meetings, Denver, CO.
- 186 Caldwell, T.G., A. Colliander, S. Misra, C. Abolt, S.H Yueh, M.H. Young. 2015. Soil Moisture Network Assessment Using the Passive and Active L- and S-Band System in Texas. Presented at the Soil Science Society of America meetings, Minneapolis, MN.
- 185 Young, M.H., L.F. Fenstermaker, and J. Belnap. 2015. Monitoring Water Content Dynamics of Biological Soil Crusts. Presented at the Soil Science Society of America meetings, Minneapolis, MN.
- 184 Young, M.H., L.F. Fenstermaker, and J. Belnap. 2015. Comparing Monitoring Strategies for Measuring Water Content of Biological Soil Crusts. Presented at the GSA National Meetings, Baltimore, MD.
- 183 Young, M.H., S.W. Tinker, E.M. Rathje, J.W. Gale, P. Eichhubl, C. Frohlich, J. Walter, J.E. Olson, H.C. Olson, A.B. Markman. 2015. TexNet and CISR: Integrated Seismicity Monitoring and Research in Texas. Presented at the Annual Meeting of the Assoc. Am. State Geologists, Flagstaff, AZ.
- 182 Young, M.H., J.-P. Nicot, B.R. Scanlon, J.P. Pierre. 2015. Water/Land/Energy Nexus for Unconventional Energy in Texas. Presented at the UCOWR/NIWR/CUAHSI Conference, Las Vegas, NV.
- 181 Young, M.H., J.-P. Nicot, B.R. Scanlon. 2015. Agua/Tierra/Energía Nexus en Texas. Presented at the V Convencion Cubana de Ciencias de la Tierra. Habana, Cuba.
- 180 Young, M.H., T. Larson, T.G. Caldwell, C.J. Abolt. 2014. Integrating Carbon Flux Measurements with Hydrologic and Thermal Responses in a Low Centered Ice-Wedge Polygon near Prudhoe Bay, AK. AGU Fall Meeting, San Francisco, CA.

- 179 Caldwell, T.G., B.R. Scanlon, M.H. Young, L.-Z. Yang. 2014. Linking Soil Water Storage to Long-Term Outlooks of Water Supply Anomalies in Texas. Presented at the GSA National Meetings, Vancouver, Canada.
- 178 Young, M.H., C.J. Abolt, T.G. Caldwell, T. Larson. 2014. High-Resolution Carbon Inventory and Dynamics in Permafrost Soils: North Slope, Alaska. Presented at the GSA National Meetings, Vancouver, Canada.
- 177 Caldwell, T.G., M.H. Young, B.R. Scanlon. 2014. Linking Soil Moisture to Water Resources in the Texas Hill Country. Presented at the SSSA National Meetings, Long Beach, CA. (invited).
- 176 Young, M.H., J.-P. Nicot, B.R. Scanlon, J.P. Pierre. 2014. Water/Land/Energy Nexus in Texas. Presented at the GSA National Meetings, Vancouver, Canada.
- 175 Young, M.H., T.G. Caldwell, H. Lin. 2014. Pedogenic and thermodynamic differences between desert microsites. Presented at the EGU meetings, Vienna, Austria.
- 174 Young, M.H., J.-P. Nicot, B.R. Scanlon, J.P. Pierre. 2014. Water/Land/Energy Nexus for Unconventional Energy in Texas. Presented at the Air & Waste Management Association, Fall 2014 Symposium Energy and the Environment: Progress and Possibilities. Austin, TX. (Invited).
- 173 Young, M.H. 2014. Seismic Experiences in Texas. Presented at the IPAA's 84th Midyear Meeting and Land Access & Environmental Issues Conference Colorado Springs, CO. (Invited).
- 172 Young, M.H., J.-P. Nicot, B.R. Scanlon. 2014. Experiences in Texas: Water, Land and Unconventional Fossil Energy Exploration. Presented at the 79th North American Wildlife and Natural Resources Conference, Denver, CO. (Invited).
- 171 Caldwell, T.G., B.R. Scanlon, D. Long, M.H. Young. 2013. Soil moisture from ground-based networks and the North American Land Data Assimilation System Phase 2 Model: are the right values somewhere in between? Presented at the AGU Fall meetings.
- 170 Young, M.H. and T.G. Caldwell. 2013. Location, Location, Location: Desert Microsites and Soil Property Development. Presented at the SSSA National Meetings, Tampa, FL (invited).
- 169 Young, M.H. and J.-P. Nicot. 2013. The Water Side of Unconventionals. Presented at the Texas Energy Council, 25th Annual Energy Symposium, Dallas, TX. (invited).
- 168 Caldwell, T.G., M.H. Young, B. Wilcox. 2013. Transitional Biomes and the Vertical Flux of Water in Semiarid Rangelands. Presented at GSA National Conference, Denver, CO.
- 167 Yang, C., S. Hovorka, M.H. Young, S.L. Porse, K. Romanak, R. Smith. 2013. Geochemical (and Pressure) Sensitivities to CO₂ Leakage in Shallow Aquifers. Presented at the AAPG International Conference and Exposition, Cartagena, Colombia.
- 166 Caldwell, T.G., and M.H. Young. 2013. Soil Development, Time, and Ecosystem Function in Water-Limited Systems, Presented at the Chapman Conference entitled "Soil Mediated Drivers of Coupled Biogeochemical and Hydrological Processes Across Scales," Tucson, AZ.
- 165 Young, M.H., D. Or and J.W. Hopmans. 2013. A Solid Future for Soil Science in the Earth Sciences. Presented at "Soil Systems and Critical Zone Processes – Integrating Life Support Functions across Disciplines," Monte Verita, Switzerland.
- 164 Young, M.H., R.L. Green; J. Conkle, D.A. Devitt, M. McCullough, L. Wright, 2013. Assessing the Risk of Using Reuse Water to Irrigate Turf-Covered Soil. Presented at the South-Central GSA Meeting, Austin, TX.
- 163 Reedy, R.C., B.R. Scanlon, I.J. Duncan, M.H. Young, B.D. Wolaver. 2012. Energy Reliability Related to Water Availability under Climate Extremes in Texas. Presented at the Fall AGU Meeting, San Francisco, CA.
- 162 Porse, S.L. Hovorka, S. Young, M.H., Zeidouni, M. 2012. Using Analytical and Numerical Modeling to Assess the Utility of Groundwater Monitoring Parameters at Carbon Capture, Utilization, and Storage Sites. Presented at the Fall AGU Meeting, San Francisco, CA.
- 161 Young, M.H., R.L. Green; D.A. Devitt, M. McCullough, L. Wright, B.J. Vanderford, S.A. Snyder. 2012. Fate and Transport of Pharmaceutical Compounds Applied to Turf-Covered Soil. Presented at

- the Fall AGU Meeting, San Francisco, CA.
- 160 Aravena, J., M. Berli, M. Menon, T. Ghezzehei, A.K. Mandava, E.E. Regentova, K.K. Potteti, N.S. Pillai, J. Steude, M.H. Young, S.W. Tyler, and P.S. Nico. 2012. Synchrotron X-Ray Microtomography (XMT) – New Means to Quantify Root Induced Changes of Rhizosphere Physical Properties. Presented at the Am. Soc. Agronomy Meetings, Cincinnati, OH.
- 159 Young, M.H., D.A. Devitt and L Wright. 2012. Numerical Analysis of Pharmaceutical Transport Through Turf/Soil Systems. Presented at the Am. Soc. Agronomy Meetings, Cincinnati, OH.
- 158 Chief, K., M.H. Young, M. Berli, T.G. Caldwell, J. Daniels, J. Healey, B. Lyles and N.K. Twarakavi. 2012. Evaluation of Seasonal and Annual Variations of Water Flow in Arid Soils Using Weighing Lysimeters. Presented at the Am. Soc. Agronomy Meetings, Cincinnati, OH.
- 157 Zhu, J., M.H. Young. 2012. Hydraulic Properties of Polyacrylamide Treated Soils and Seepage Reduction in Unlined Canals. Presented at the Am. Soc. Agronomy Meetings, Cincinnati, OH.
- 156 Young, M.H. S. Hovorka, T. Meckel. 2012. Update on Bureau of Economic Geology Research in Geologic Sequestration: Project Description and Update. TCEQ Annual Trade Fair, Austin, TX. May 2012.
- 155 Young, M.H. J.-P. Nicot. 2012. Energy/Environmental Aspects of Unconventional Gas and Hydrofracing. Presented at the AIPG/AGWT meeting, Austin, TX March 2012.
- 154 Young, M.H., D. Or, J.W. Hopmans. 2011. The Future of Soil in Earth Sciences. Presented at the Geological Society Am. Meetings, Minneapolis, MN.
- 153 Twarakavi, N., K. Chief, M. Berli, T.G. Caldwell, J. Daniels, M.H. Young. 2011. Closing the Water Balance for Arid Soils – First Results from a Large Lysimeter Study. Presented at the Fall AGU Meeting, San Francisco, CA.
- 152 Koonce, J., MH. Young, D.A. Devitt, Z. Yu, A. Wagner, L.F. Fenstermaker. 2011. Soil Water and Thermal Gradients in the Vadose Zone: Assessing Evapotranspiration, Recharge Rates and Shifts in Phreatophytic Water Source. Presented at the Fall AGU Meeting, San Francisco, CA.
- 151 Scanlon, B.R., K. Schilling, M.H. Young, I.J. Duncan, P.W. Gerbens-Leenes. 2011. Impacts of Past Land Use Changes on Water Resources: An Analog for Assessing Effects of Proposed Bioenergy Crops. Presented at the Fall AGU Meeting, San Francisco, CA.
- 150 Zhu, J., M.H. Young. 2011. Impacts of Riparian Zone Plant Water Use on Fractal Dynamics of Groundwater Levels. Presented at the Fall AGU Meeting, San Francisco, CA.
- 149 Young, M.H. R. Green, M. McCullough, D.A. Devitt, J.F. Healey. 2011. Field-Scale Monitoring of PPCP/EDC Transport at Active Golf Course Sites. Presented at the Am. Soc. Agronomy Meetings, San Antonio. TX.
- 148 Wright, L., D.A. Devitt and Michael Young. 2011. Fate and Transport of Pharmaceuticals in Soil Turfgrass Systems Irrigated with Reclaimed Water. Presented at the Am. Soc. Agronomy Meetings, San Antonio. TX.
- 147 Caldwell, T.G., T. Wohling, G. Flerchinger, M.H. Young, E.V. McDonald and S.P. Hardegree. 2011. Inverse Modeling Water Contents of Semiarid Soils Using Multi-Objective Parameter Optimization to Obtain the Compromise Solution. Presented at the Am. Soc. Agronomy Meetings, San Antonio. TX.
- 146 Young, M.H., J.-P. Nicot, B.R. Scanlon, J.G. Paine. 2011. Water-Related Research Activities Being Conducted by the Bureau of Economic Geology, UT-Austin. Presented at the Texas Water Conservation Association, Austin TX.
- 145 Meckel, T., R. Trevino, D.L. Carr, M.H. Young. 2011 Gulf of Mexico Miocene CO₂ Site Characterization Mega Transect. Presented at the Assoc. Am State Geologists National Meeting, Dubuque, IA, June 2011.
- 144 Young, M.H., J.-P. Nicot. 2011. Above-Ground Energy/Water Aspects of Unconventional Gas and Hydrofracing. Presented at the Assoc. Am State Geologists National Meeting, Dubuque, IA, June

- 2011.
- 143 Young, M.H., T.G. Caldwell, L. Chen, D.S. Shafer, J.J. Miller, W.J. Meyer. 2011. Multi-scale characterization of arid soil properties for predicting hydrologic processes. Extended abstract, Presented at the ASCE EWRI conference, Singapore.
- 142 Zhu, J., M.H. Young, J. Healey, R. Jasoni, J. Osterburg. 2010. Estimating Riparian Zone Evapotranspiration from Groundwater Level Fluctuations: Implication of River Stage. Presented at the Fall AGU Meeting, San Francisco, CA.
- 141 Wilcox, B.P., L. Turnbull., M.H. Young, J. Williams, S. Ravi, M.S. Seyfried, D.R. Bowling, R.L. Scott, M.J. Germino, T.G. Caldwell, J. Wainwright. 2010. Ecohydrological Consequences of Grasses Invading Shrublands: A Comparison of Cold and Warm Deserts. Presented at the Fall AGU Meeting, San Francisco, CA.
- 140 Wright, L., D.A. Devitt, M.H. Young. 2010. Fate and Transport of Pharmaceuticals in Soil Turfgrass Systems Irrigated with Reclaimed Water. Presented at the Am. Soc Agronomy Meetings, Long Beach, CA.
- 139 Koonce, J., M.H. Young, D.A. Devitt, Z. Yu. 2010. Using Distributed Temperature Sensing (DTS) as a Means to Understand Evaporative and Transpirative Processes in Shallow Groundwater Basins. Presented at the Am. Soc Agronomy Meetings, Long Beach, CA.
- 138 Young, M.H., B. Lyles, J. Koonce, K. Chief and J. Healey. 2010. Near-Surface Above- and below-Ground Measurements of Soil Evaporation. Presented at the Am. Soc Agronomy Meetings, Long Beach, CA.
- 137 Wells, S.G., E.V. McDonald, T.G. Caldwell, M.H. Young, and K. Al-Quda, Role of Desert Pavement/Soil Development and Hydrology on Long-term Landscape Evolution in Arid Regions, International Union of Quaternary Research Conference on Paleohydrology, Hebrew University, Jerusalem, October 28-November 3, 2009.
- 136 Meyer, W.J., S. Ahmad, M.H. Young, D.S. Shafer, J.J. Miller, K. Chief. 2009. A Multi-Platform Approach to Examine Spatial and Temporal Variability of Antecedent Moisture Content on Model-Generated Runoff from a Watershed. Presented at the Fall AGU Meeting, San Francisco, CA.
- 135 Berli, M., M. Menon, T. A. Ghezzehei, N. Pillai, E.E. Regentova, P.S. Nico, M.H. Young, S.W. Tyler. 2009. A Step Toward Unraveling Rhizosphere Physics. Presented at the Fall AGU Meeting, San Francisco, CA.
- 134 Chen, L., L. Xiang, M.H. Young, Z. Yu. 2009. Parameter Optimization for Green-Ampt Infiltration Model. Presented at the Fall AGU Meeting, San Francisco, CA.
- 133 Acharya, K. Y. Li, M. Stone, Z. Yu, M.H. Young, D. S. Shafer, J. Zhu, J.J. Warwick. 2009. Spatiotemporal distribution of algal and nutrient, and their correlations based on long-term monitoring data in Lake Taihu, China. Presented at the Fall AGU Meeting, San Francisco, CA.
- 132 Koonce, J., D. Sada, M.H. Young, M. Stone, Z. Yu. 2009. Evaluating Groundwater and Surface Water Exchange in Travertine Spring, Death Valley, CA, Using Temperature Coupled With Soil and Water Chemistry and Moisture Content. Presented at the Fall AGU Meeting, San Francisco, CA.
- 131 Sun, D., J. Zhu, M.H. Young, T. G. Caldwell, E. McDonald. 2009. Effect of Canopy Patterns on Large Scale Water Budgets in Arid Environments. Presented at the Fall AGU Meeting, San Francisco, CA.
- 130 Devitt, D.A., L.K. Fenstermaker, M.H. Young, B. Conrad and B. Bird. 2009. Evapotranspiration of Mixed Shrub Communities in Phreatophytic Zones of the Great Basin. Presented at the Fall AGU Meeting, San Francisco, CA. (Invited)
- 129 Young, M.H. L. Fenstermaker, J. Zhu. 2009. Dynamics of Very Near-Surface Water Contents in An Arid Setting. Presented at the Am Soc. Agron. Meetings, Pittsburgh, PA.
- 128 Fenstermaker, L., M.H. Young. 2009. Carbon Flux and Spectral Response of Biological Soil Crust to

- Soil Moisture Status. Presented at the Am Soc. Agron. Meetings, Pittsburgh, PA.
- 127 Meyer, W.J., M.H. Young, J.J. Miller, D. S. Shafer, S. Ahmad. 2009. Spatial and Temporal Variability of Antecedent Moisture Content on Model-Generated Runoff From a Watershed. Presented at the Am Soc. Agron. Meetings, Pittsburgh, PA.
- 126 Chief, K., T.G. Caldwell, M.H. Young. 2009. Spatial Variability of Air and Water Permeability for Two Watersheds in the Mojave and Sonoran Desert. Presented at the Am Soc. Agron. Meetings, Pittsburgh, PA.
- 125 Caldwell, T.G., E.V. McDonald, S.N. Bacon, M.H. Young, and R. Schumer. 2009. Paleoclimate Simulations and Nitrate Accumulation in Sonoran Desert Soil. Presented at the Am Soc. Agron. Meetings, Pittsburgh, PA.
- 124 Young, M.H. L. Fenstermaker, J. Zhu. 2009. Near-Surface Water Content and Carbon Flux in Biological Soil Crust. Presented at the AGU Chapman Conference, Sun Valley, ID 4 – 8 October 2009.
- 123 Menon, M., M. Berli, T.A. Ghezzehei, P. Nico, M.H. Young, S.W. Tyler. 2008. Visualizing Rhizosphere Soil Structure Around Living Roots. Presented at the Fall AGU Meeting, San Francisco, CA.
- 122 Nie, W., M.J. Nicholl, M.H. Young, Z. Yu. 2008. Impact of Soil Layering on Evaporation Driven Flow and Transport in Arid Soils. Presented at the Fall AGU Meeting, San Francisco, CA.
- 121 Koonce, J. M.H. Young, Z. Yu, Chief, K., J. Healey, S.W. Tyler. 2008. Relating Temperature Propagation and Wetting Front in Arid Soils Using Distributed Temperature Sensing (DTS) Coupled With Multiple Technologies. Presented at the Fall AGU Meeting, San Francisco, CA.
- 120 Chief, K., M.H. Young, J. Healey, E. Johnson, E. Knight, J. Koonce, Z. Yu, S.W. Tyler, 2008. Scaling Environmental Processes in Heterogeneous Arid Soils (SEPHAS) Weighing Lysimeter Facility: Construction, Installation, and Preliminary Infiltration Experiment Data. Presented at the Fall AGU Meeting, San Francisco, CA.
- 119 Xiang, L., J. Mon, Z. Yu, M.H. Young, M. Stone, K. Acharya. 2008. Simulating One Dimensional Water Flow and Solute Transport in Arid Soils. Presented at the Fall AGU Meeting, San Francisco, CA.
- 118 Berli, M., T. Ghezzehei, M. Menon, S.W. Tyler, M.H Young, A. Dexter. 2008. Modeling Rhizosphere Soil Mechanics and Hydraulics - An Overview. Presented at Am. Soc. Agron. National Meetings, Houston, TX.
- 117 Young, M.H., T.G. Caldwell, J. Zhu, L. Fenstermaker, Eric V. McDonald. 2008. Multi-Scale Variability of Soil and Hydraulic Properties and Impacts to Arid Water Balance. Presented at Am. Soc. Agron. National Meetings, Houston, TX.
- 116 Mon, J., Z. Yu, M.H. Young. 2008. Tracer Characteristics of Brilliant Blue FCF and FD&C Green No. 3 in Arid Soils. Presented at Am. Soc. Agron. National Meetings, Houston, TX.
- 115 Chief, K, M.H. Young. 2008. Spatial Variability of Soil Air Permeability and Hydraulic Properties in Desert Soils. Presented at Am. Soc. Agron. National Meetings, Houston, TX.
- 114 Young, M.H., E.V. McDonald, T.G. Caldwell. 2008. Relating Mass and Energy Fluxes to Arid Soil Development. Presented at Am. Soc. Agron. National Meetings, Houston, TX.
- 113 Caldwell, T.G., E.V. McDonald, MH. Young, S. Bacon, G.M. Marion. 2008. Numerical Simulations of Salt Accumulation In a Hyper-Arid Soil Chronosequence In the Sonoran Desert. Presented at Am. Soc. Agron. National Meetings, Houston, TX.
- 112 Caldwell, T.G., M.H. Young, J.J. Miller, G.K. Dalldorf. 2008. Characterizing Hydraulic Properties in An Arid Watershed to Aid in Flood Control and Uncertainty Analysis. Presented at Am. Soc. Agron. National Meetings, Houston, TX.
- 111 Young, M.H., T.G. Caldwell, J. Miller, L. Chen, G. Dalldorf, S. Bacon and E. McDonald. 2008. Using Terrain Forecasting and Field Measurements to Predict Runoff Potential. Presented at the Am. Soc. of Flood Plain Managers National Meetings, San Diego, CA.
- 110 Young, M.H., T.G. Caldwell, E.V. McDonald. 2008. Evolution of arid alluvial soils: Linking texture and

- structure to the partitioning of water at different spatial scales. Presented at the 1st International Conference on Hydropedology, Penn State University, PA (Invited).
- 109 Young, M.H. 2008. Monitoring and examining soil water balance to support riparian restoration. Presented at the Lower Colorado River Basin Riparian Revegetation Workshop. Las Vegas, NV, May 7, 2008.
- 108 Caldwell, T., M.H. Young, J. Zhu, E.V. McDonald. 2008. Gradation of Soil Hydraulic Properties from Canopy to Interspace on a Mojave Desert Soil Chronosequence. Presented at the European Geosciences Meeting, Vienna, Austria, April 14-18, 2008.
- 107 Zhu, J., T.G. Caldwell, M.H. Young, E.V. McDonald. 2008. Implications of Under-Canopy and Interspace Soil Hydraulic Property Distributions in Large Scale Desert Ecosystems. Presented at the European Geosciences Meeting, Vienna, Austria, April 14-18, 2008.
- 106 Young, M.H., Z. Yu, S.W. Tyler, K. Chief, E. Knight, J. Healey, J. Zhu, M. Menon, J. Mon. 2008. Examining Arid Soil Processes in Nevada USA Using Weighing Lysimeters. Presented at the European Geosciences Meeting, Vienna, Austria, April 14-18, 2008.
- 105 Caldwell, T.G., M.H. Young, J. Zhu, E.V. McDonald. 2008. Heterogeneity of Soils and Hydraulic Properties from Canopy to Interspace in the Mojave Desert. Presented at the Symposium "Understanding Near-Surface Environmental Processes," Las Vegas, NV April 9-10, 2008.
- 104 Zhu, J. T.G. Caldwell, M.H. Young, E.V. McDonald. 2008. Scaling Under-Canopy and Interspace Soil Hydraulic Properties in Desert Ecosystems. Presented at the Symposium "Understanding Near-Surface Environmental Processes," Las Vegas, NV April 9-10, 2008.
- 103 Berli, M., M. Menon, S.W. Tyler, M.H. Young. 2008. Root Induced Changes in Physical Properties of Desert Soils. Presented at the Symposium "Understanding Near-Surface Environmental Processes," Las Vegas, NV April 9-10, 2008.
- 102 Conrad, B., D.A. Devitt, M.H. Young, L. Fenstermaker. 2008. Estimating Sensible Heat in the Great Basin, NV using a Large Aperture Scintillometer. Presented at the Symposium "Understanding Near-Surface Environmental Processes," Las Vegas, NV April 9-10, 2008.
- 101 Devitt, D.A., B. Conrad, L. Fenstermaker, M.H. Young, B. Bird. 2008. Basin Wide Evapotranspiration Estimates in Northern Nevada. Presented at the Symposium "Understanding Near-Surface Environmental Processes," Las Vegas, NV April 9-10, 2008.
- 100 Knight, E., M.H. Young, K. Chief, J. Healey, J. Zhu, J. Mon, M. Menon, S.W. Tyler, Z. Yu. 2008. Presented at the Symposium "Understanding Near-Surface Environmental Processes," Las Vegas, NV April 9-10, 2008.
- 99 Young, M.H., T.G. Caldwell, J.J. Miller, G. Dalldorf. 2007. Combining Pedotransfer Functions and Detailed Geomorphic Mapping to Characterize Runoff Potential on an Arid Alluvial Fan Complex. Presented at the Fall AGU Meeting, San Francisco, CA.
- 98 Caldwell, T.G., M.H. Young, J. Zhu, L. Fenstermaker, E.V. McDonald. 2007. Scaling Heterogeneous Soil Hydraulic Properties Using Canopy/Interspace Distributions in a Mojave Desert Ecosystem. Presented at the Fall AGU Meeting, San Francisco, CA.
- 97 Conrad, B. D.A. Devitt, M.H. Young, L. Fenstermaker. 2007. Estimating Sensible Heat in the Great Basin, NV using a Large Aperture Scintillometer. Presented at the Fall AGU Meeting, San Francisco, CA.
- 96 Arrowood, T., M.H. Young, Z. Yu, S. Labahn, D. Moser. 2007. Fate and Transport of Acrylamide in Soil and Groundwater Systems: Sorption, Retardation and Numerical Simulations. Presented at the Fall AGU Meeting, San Francisco, CA.
- 95 Labahn, S., D. Moser, T. Arrowood, M.H. Young. 2007. Fate of Acrylamide in Soil and Groundwater Systems: Microbial Degradation. Presented at the Fall AGU Meeting, San Francisco, CA.
- 94 Yin, J. M.H. Young, Z. Yu. 2007. Effects of Paleoclimate and Time-Varying Canopy Structures on Paleo-Water Fluxes. Presented at the Fall AGU Meeting, San Francisco, CA.

- 93 Chen, L. J. Zhu, M.H. Young. 2007. Polyacrylamide Transport in Water Delivery Canals. Presented at the Fall AGU Meeting, San Francisco, CA.
- 92 Young, M.H. 2007. Groundwater Characterization and Monitoring Strategies II, Presented at the American Nuclear Society Meetings, Washington, DC, Nov 11-15, 2007 (Invited).
- 91 Caldwell, T.G. M.H. Young, J. Zhu, E.V. McDonald. 2007. Small-Scale Heterogeneity of Soil Hydraulic Properties on Large-Scale Water Balance Simulations. Presented at the Am. Soc. Agron. Meetings, New Orleans, LA.
- 90 Young, M.H. T.G. Caldwell, J. Zhu. 2007. Spatial Variability of Soil Hydraulic Properties at Interspace/Canopy Microsites. Presented at the Am. Soc. Agron. Meetings, New Orleans, LA. (Invited).
- 89 Devitt, D.A. M. Baghzouz, B. Bird, M.H. 2007. Surface Temperature, Heat Loading and Spectral Reflectance of Artificial Turfgrass. Presented at the Am. Soc. Agron. Meetings, New Orleans, LA.
- 88 Devitt, D.A. B. Bird, M.H. Young. 2007. Spatial and Temporal Assessment of Soil Moisture Redistribution, Evaporation, and Transpiration. Presented at the Am. Soc. Agron. Meetings, New Orleans, LA.
- 87 Young, M.H. Measuring Water Content in Near-surface Soils With Large Changes In Ambient Temperature. Presented at the Environmental Sensors Symposium. Boise State University, Boise ID, Oct 26-27, 2007 (Invited).
- 86 Caldwell, T.G. E.V. McDonald, M.H. Young, E.P. Hamerlynck and S.N. Bacon. 2007. Soil Development and Hydrology of an Arid Soil Chronosequence in the Sonoran Desert. Presented at the Unsaturated Zone Interest Group meetings, Los Alamos, NM. August 27-29, 2007.
- 85 McDonald, E.V. M. H. Young, T.G. Caldwell, S.G. Benner, and D.G. Meadows. 2007. Hydraulic Properties of a Desert Soil Chronosequence in the Mojave Desert, USA. Presented at the Unsaturated Zone Interest Group meetings, Los Alamos, NM. August 27-29, 2007.
- 84 Young, M.H., Z. Yu, S.W. Tyler. 2007. Large Weighing Lysimeters for Studying Environmental Processes in Arid Soils, Presented at the Unsaturated Zone Interest Group meetings, Los Alamos, NM. August 27-29, 2007.
- 83 Moran, E., M.H. Young., Z. Yu. 2006. Mechanisms for reducing infiltration in laboratory columns using polyacrylamide (PAM). Presented at the Fall AGU Meeting, San Francisco, CA.
- 82 Chen, L., M.H. Young. 2006. A Physically-Based Two-dimensional Rainfall-Runoff Model for Small-Scale Watersheds. Presented at the Fall AGU Meeting, San Francisco, CA.
- 81 Caldwell, T.G., E.V. McDonald, M.H. Young, E.P. Hamerlynck, S.N. Bacon. 2006. Ecohydrology of an Arid Soil Chronosequence in the Sonoran Desert, Yuma Proving Ground, USA. Presented at the Fall AGU Meeting, San Francisco, CA.
- 80 Susfalk, R.B., B.J. Epstein. M. Schmidt, J.O. Goreham, B. Fitzgerald, M.H. Young, C. Martin, J. Swihart, D. Smith. 2006. Seepage Reduction from Unlined Irrigation Canals: Water Quality and Seepage Reduction Effectiveness. Presented at the Fall AGU Meeting, San Francisco, CA.
- 79 Cablk, M., J. Zhu, C. Kratt, R. Jasoni, M.H. Young, J. Thomas. J. Arnone. 2006. Multi-scale remote sensing observations as a basis for estimating evapotranspiration across the eastern Great Basin Desert, Nevada, USA. Presented at the Fall AGU Meeting, San Francisco, CA.
- 78 Zhu, J., M.H. Young, E.A. Moran. 2006. Effects of Polyacrylamide Treated Soils on Water Seepage in Unlined Water Delivery Canals. Presented at the American Soc. Agron meetings, Indianapolis, IN.
- 77 Young, M.H., T. Caldwell, D.G. Meadows, V. Etyemezian, G. Nikolic, D. Shafer, E. McDonald, J. Miller, J. Goreham. 2006. Field and Laboratory Evaluation of a Soil-Applied, Organic Emulsion. Presented at the American Soc. Agron meetings, Indianapolis, IN.
- 76 Chen, L. J Zhu, M.H. Young. 2006. Modelling Polyacrylamide Transport in Water Delivery Canals. Presented at the American Soc. Agron meetings, Indianapolis, IN.

- 75 Meadows, D.G. M.H. Young, L. Fenstermaker. 2006. Impact of Spatial Variability of Soil Properties on Local Water Balance in a Mojave Desert Ecosystem. Presented at the American Soc. Agron meetings, Indianapolis, IN.
- 74 Zhu, J., D. Sun. M.H. Young. 2006. Aggregating Hydraulic Property Measurements to Large Scale Hydrologic Processes. Presented at the AGU - Western Pacific Geophysics Meeting, Beijing, China.
- 73 Young, M.H., D.G. Meadows, T.G. Caldwell, D.S. Shafer, E.V. McDonald. 2006. Evolution of soil hydraulic properties on arid alluvial fans. Presented at the AGU - Western Pacific Geophysics Meeting, Beijing, China (Invited).
- 72 Young, M.H., T. Caldwell, D.G. Meadows, V. Etyemezian, G. Nikolic, D. Shafer, E. McDonald, J. Miller, J. Goreham. 2006. Hydrologic and Air Quality Impacts of a Soil-Applied, Organic Emulsion. Presented at the World Congress of Soil Science, Philadelphia, PA.
- 71 Young, M.H. Z. Yu, S.W. Tyler. 2006. Scaling Environmental Processes in Heterogeneous Arid Soils (SEPHAS): A New Research Facility in Nevada USA. Presented at the World Congress of Soil Science, Philadelphia, PA. (Invited).
- 70 Zhu, J., M.H. Young. 2005. Correspondence of hydraulic functions and its implication on upscaling for large scale flux and surface soil moisture in heterogeneous soils. Presented at the Fall AGU Meeting, San Francisco, CA.
- 69 Moran, E.M. M.H. Young, Z. Yu. 2005. Laboratory studies to examine the impact of polyacrylamide (PAM) on soil hydraulic conductivity. Presented at the Fall AGU Meeting, San Francisco, CA.
- 68 Young, M.H., T.G. Caldwell, J.O. Goreham, D.G. Meadows, D.S. Shafer, J.J. Miller, E.V. McDonald. 2005. Hydrologic impacts of a surface-applied, organic emulsion on arid soils. Presented at the Fall AGU Meeting, San Francisco, CA.
- 67 Susfalk, R.B., M.H. Young, M. Schmidt, B.J. Epstein, J.O. Goreham, J. Swihart, D. Smith. 2005. Use of polyacrylamide to reduce seepage from unlined irrigation canals: initial results from small scale test troughs. Presented at the Fall AGU Meeting, San Francisco, CA.
- 66 Caldwell, T.G., E.V. McDonald, M.H. Young, B.A. Stevenson. 2005. Modeling the interdependence of hydropedology and root distributions of {Larrea Tridentata} in the Mojave Desert. Presented at the Fall AGU Meeting, San Francisco, CA.
- 65 Chen, L., M.H. Young. 2005. Two-dimensional approaches for simulating overland flow. Presented at the Fall AGU Meeting, San Francisco, CA.
- 64 Young, M.H. Z. Yu, S.W. Tyler, et al. 2005. Scaling Environmental Processes in Heterogeneous Arid Soils (SEPHAS): A New Nevada NSF EPSCoR Initiative. Presented at the NSF Sponsored Workshop "Frontiers in Exploration of the Critical Zone" University of Delaware, Newark, DE.
- 63 Meadows, D.G., M.H. Young, E.V. McDonald. 2005. Dynamism in the predominant mechanism of infiltration on desert pavements as a function of surface age. Presented at the American Soc. Agron meetings, Salt Lake City, UT.
- 62 Zhu, J., M.H. Young, C.A. Cooper, D.A. Devitt. 2005. Modeling tritium vapor transport in soil profiles and subsequent tritium uptake by plants. Presented at the American Soc. Agron meetings, Salt Lake City, UT.
- 61 Yin, J. M.H. Young. Z. Yu. 2005. Effects of time-varying soil properties and canopy structure on paleorecharge in the Mojave Desert. Presented at the Geological Society America meetings, Denver, CO.
- 60 Holmes, C.D., R.S. Nowak, M.H. Young. 2005. Intact biological soil crust does not affect soil moisture content in the Mojave Desert. Presented at the Ecological Society of America meetings, Montreal, CA.
- 59 Zitzer, S.F., M.H. Young. 2005. Surface emulsion impacts seed germination and winter annual vital rates in a Sonoran Desert wash community. Presented at the Ecological Society of America meetings, Montreal, CA.

- 58 Young, M.H., D.G. Meadows, D. Gimenez, R.J. Heck, T.R. Elliot. 2004. Dynamic behavior of pore morphology using CT scanning: Preliminary results. Am. Soc. Agron National Meetings, Seattle, WA.
- 57 Young, M.H., J.O. Goreham, J. Zimpfer, D. Wagner, S.A. Smith. 2004. Measuring water content in Mojave Desert biological soil crusts using dual-probe heat-pulse method. (Invited) Am. Soc. Agron National Meetings, Seattle, WA.
- 56 Prim, P., D.G. Meadows, M.H. Young. 2004. Determination of interped flow and surface sealing through infiltration experiments on a 100 kA desert pavement. Geological Soc. Am. National Meetings, Denver, CO.
- 55 Meadows, D.G., M.H. Young, E.V. McDonald. 2004. A laboratory method for determining the unsaturated hydraulic functions of individual soil peds. Am. Soc. Agron National Meetings, Seattle, WA.
- 54 Zitzer, S.F., D.S. Shafer, M.H. Young, E.V. McDonald, and T.G. Caldwell. 2004. Changes in diversity and density of Northern Mojave plant communities during co-development of surface desert pavements and vesicular subsoil horizons across a 125,000 year-old chronosequence. Presented at the Ecological Society Meetings. Portland, OR.
- 53 Albright W.H., M.H. Young, K.F. Pohlmann, S.F. Zitzer, 2004. Sensitivity analysis as a design tool for alternative final landfill covers. Designing, Building and Regulating Evapotranspiration (ET) Landfill Covers. U.S. Environmental Protection Agency's Remediation Technology Development Forum (RTDF) Program, Denver CO. March 9-10, 2004.
- 52 Meadows, D.G., M.H. Young, E.V. McDonald, T.G. Caldwell. 2003. Hydraulic property determination of vesiculated soil peds in desert pavement environments. Presented at the Fall AGU meeting, San Francisco, CA.
- 51 Caldwell, T.G., E.V. McDonald, M.H. Young, 2003 Modeling soil moisture in support of revegetation of military lands in arid regions. Presented at the Fall AGU meeting, San Francisco, CA.
- 50 Shafer, D.S., M.H. Young, S. Zitzer, E.V. McDonald, T.G. Caldwell. 2003 Coupled environmental processes: Implications for landscape development in the northern Mojave Desert. Presented at the Fall AGU meeting, San Francisco, CA.
- 49 Young, M.H., E.V. McDonald, T.G. Caldwell, S.G. Benner. 2003. Infiltration through desert pavements, Mojave Desert, CA, USA. Presented at the Am. Soc. Agronomy Meetings, Denver, CO (Invited).
- 48 Cooper, C.A., M.H. Young, S. Sharpe, J.J. Miller. 2003. Numerical Simulation of Moisture Flux in Deep Unsaturated Zones. Presented at the Spring AGU meeting, Nice, France.
- 47 Young, M.H., E.V. McDonald, T.G. Caldwell, S.G. Benner. 2003. Infiltration through desert pavements, Mojave Desert, CA, USA. Presented at the Spring AGU meeting, Nice, France.
- 46 Miller, J.J., R.H. French, M.H. Young, and S.A. Mizell. 2003. Effect of Soil Condition on Channel Transmission Loss During Ephemeral Flow Events. American Society of Civil Engineers, Environmental and Water Resources Institute, World Water and Environmental Congress, Conference Proc, June 23-27, 2003, Philadelphia, PA.
- 45 Dahan, O. E.V. McDonald, M.H. Young. 2002. Development of a flexible TDR probe for deep vadose zone monitoring. Presented at the Fall AGU meeting, San Francisco, CA.
- 44 Nichols, R.L., M. H. Young, K. L. Dixon, J. Rossabi, W.K. Hyde, H. Holmes-Burns. 2002. Using Advanced Tensiometers to Monitor Temporal Variations in Pore Pressure. Presented at the Fall AGU meeting, San Francisco, CA.
- 43 Young, M.H, H. Holmes-Burns, K. Pohlmann, R.L. Nichols. 2002. Estimating Deep Flux Using Vadose Zone Monitoring And Numerical Modeling. Extended Abstract. USDOE Technical Information Exchange, Oakland, CA.
- 42 Pennell, K.D., A. Karagunduz, M.H. Young, 2002. Potential impacts of surfactant adjuvants on contaminant availability and transport in soils. Extended abstract. American Chemical Society

Spring Meetings, Boston, MA.

- 41 Holmes-Burns, H., D. Wyatt, M.H. Young, R.L. Nichols, J. Rossabi, B.B. Looney, J. Cook. 2002. Savannah River Site Vadose Zone Monitoring System. Extended abstract. Spectrum 2002, Reno, NV.
- 40 Young, M.H., K.D. Pohlmann, R.L. Nichols, K.L. Dixon, H. Holmes-Burns. 2002. Estimating deep flux at a humid site in South Carolina using deterministic and Monte Carlo modeling. American Geophysical Union, Spring Meeting, Washington, DC.
- 39 Shafer, D.S., J.J. Miller, M.H. Young, S.C. Edwards, S.E. Rawlinson. 2002. The future through the past: The use of analog sites for design criteria and long-term performance assessment of evapotranspiration landfill covers. Presented at Waste Management, Tucson, AZ.
- 38 Young, M.H., T.C. Rasmussen, F.C. Lyons, K.D. Pennell. 2001. Optimized system to improve pumping rate stability during aquifer tests. American Geophysical Union. Fall Meeting. San Francisco, CA.
- 37 Naranjo, R.C. M.H. Young, R. Niswonger, J.J. Miller, R.H. French. 2001. The use of streambed temperatures to estimate transmission losses on an experimental channel in an arid environment. American Geophysical Union. Fall Meeting. San Francisco, CA.
- 36 Rasmussen, T.C., K.G. Haborak, M.H. Young, 2001. Estimating aquifer properties using sinusoidal pumping tests. American Geophysical Union. Fall Meeting. San Francisco, CA.
- 35 Shafer, D.S., J.J. Miller, S. Edwards, M.H. Young. 2001. The use of analog sites for designing and evaluating long term performance of evapotranspiration covers in the northern Mohave Desert, USA. American Geophysical Union. Fall Meeting. San Francisco, CA.
- 34 Young, M.H., D.M. Endale, K.D. Pennell, J.L. Steiner, D.S. Fisher, A. Amirtharajah. 2000. Subsurface transport of cryptosporidium from pastures to surface waters: 3. Hydrologic system. Agron. Abstracts., Am. Soc. Agron., Madison. WI.
- 33 Kong, L., K.D. Pennell, M.H. Young. 2000. Subsurface transport of cryptosporidium from pastures to surface waters: 2. Transport processes. Agron. Abstracts, Am. Soc. Agron., Madison, WI.
- 32 Endale, D.M., M.H. Young, J.L. Steiner, D.S. Fisher, K.D. Pennell, A. Amirtharajah. 2000. Subsurface transport of cryptosporidium from pastures to surface waters: 1. Field design and rationale. Agron. Abstracts., Am. Soc. Agron., Madison. WI.
- 31 Young, M.H., D.M. Endale, K.D. Pennell, A. Amirtharajah. D.S. Fisher, J.L. Steiner. 2000. Cryptosporidium transport in small catchments used for grazing lands. AWWA Annual Conference and Exposition, Denver, CO. June 11-15, 2000.
- 30 Young, M.H., T.C. Rasmussen, K.D. Pennell, K. Haborak, F.C. Lyons. 1999. Minimizing investigation-derived waste using sinusoidal aquifer testing. American Geophysical Union. Fall Meeting. San Francisco, CA.
- 29 Thomasson, M.J., P.J. Wierenga, R.L. Bassett, M.H. Young. 1999. Prediction of the wetting front advance for the Maricopa Environmental Monitoring Site, Arizona. American Geophysical Union. Fall Meeting. San Francisco, CA.
- 28 Karagunduz, A., K.D. Pennell, M.H. Young. 1999. Influence of surface tension reduction on flow and transport in unsaturated porous media. American Geophysical Union. Fall Meeting. San Francisco, CA.
- 27 Fisher, D.S., D.M. Endale, J.L. Steiner, M.H. Young, K.D. Pennell, A. Amirtharajah. 1999. Problems in predicting transport of cryptosporidium from grazinglands in the Southern Piedmont of the US. EPA Workshop on the Overland Migration of Cryptosporidium. 20-22 September, Piskataway/Edison, NJ.
- 26 Young, M.H., A. Karagunduz, J. Simunek, K.D. Pennell. 1999. Modified upward infiltration method for characterizing soil hydraulic properties, Agron. Abstracts., Am. Soc. Agron., Madison. WI.
- 25 Young, M.H., P.J. Wierenga, A.W. Warrick, L.L. Hofmann, S.A. Musil. 1998. Strategies for monitoring

- soil water conditions at waste disposal sites. American Geophysical Union. Fall Meeting. San Francisco, CA (Invited).
- 24 Zou, Z-Y, M.H. Young, P.J. Wierenga. 1998. Estimation of unsaturated hydraulic properties from a deep infiltration experiment with constant flux. American Geophysical Union. Fall Meeting. San Francisco, CA.
- 23 Young, M.H., Z-Y. Zou, P.J. Wierenga. 1998. Neutron probe calibration during field infiltration experiments. Agron. Abstracts., Am. Soc. Agron., Madison. WI.
- 22 Karagunduz, A., K.D. Pennell, M.H. Young. 1998. Influence of surfactants on unsaturated soil hydraulic and solute transport properties. Agron. Abstracts, Am. Soc. Agron., Madison. WI.
- 21 Wierenga, P.J., A.W. Warrick, M.H. Young, L.L. Hofmann, S.A. Musil. 1998. Detection of water and contaminants during a field-scale infiltration experiment. Extended abstract. Int'l Soil Sci. Soc. Meetings. Montpellier, France.
- 20 Young, M.H., P.J. Wierenga, A.W. Warrick, L.L. Hofmann, S.A. Musil. 1997. Measuring spatial variability of water breakthrough during field-scale infiltration experiments. American Geophysical Union. Fall Meeting. San Francisco, CA (Invited).
- 19 Nelson, N.T., M.L. Brusseau, M.H. Young, T.D. Carlson, P.J. Wierenga. 1997. Demonstration of a gas-phase partitioning tracer test for the in-situ measurement of soil water content. American Geophysical Union. Fall Meeting. San Francisco, CA (Invited).
- 18 Young, M.H., P.J. Wierenga, A.W. Warrick, L.L. Hofmann, S.A. Musil. 1997. Monitoring soil water during a field-scale infiltration experiment. Agron. Abstracts., Am. Soc. Agron., Madison. WI. (Invited)
- 17 Wierenga, P.J., A.W. Warrick, M.H. Young, L.L. Hofmann, S.A. Musil, 1997. Soil moisture along a 50 m transect measured with alternative sensors. American Geophysical Union. Spring Meeting. Baltimore, MD (Invited).
- 16 Wierenga, P.J., M.L. Brusseau, M.H. Young, Z-Y Zou. 1997. Field weighing lysimeter for vadose zone transport and remediation studies. Presented at the NIEHS Superfund Basic Research Program Symposium. Feb 24-26, Chapel Hill, NC.
- 15 Scanlon, B.R., Wierenga, P.J., M.H. Young, Goldsmith, R.S. 1996. Piston-like versus preferential flow in unsaturated porous media in an arid setting. Geol. Soc. Am. Abstracts with Programs, 28.
- 14 Warrick, A.W., M.H. Young, S.A. Musil. P.J. Wierenga, and L.L. Hofmann. 1996. Probability of intersecting hot spots with alternative subsurface sampling patterns. Agron. Abs., Am. Soc. Agron., Madison. WI.
- 13 Wierenga, P.J., M.H. Young, A.W. Warrick, L.L. Hofmann, S.A. Musil. 1996. Field experiments for evaluating vadose zone monitoring systems for flow and transport models. Agron. Abs., Am. Soc. Agron., Madison. WI.
- 12 Young, M.H., P.J. Wierenga, A.W. Warrick, L.L. Hofmann, S.A. Musil. 1996. Factors influencing the efficiency of vadose zone monitoring systems at waste disposal sites. Agron. Abstracts., Am. Soc. Agron., Madison. WI.
- 11 Young, M.H., P.J. Wierenga. 1996. TDR and weighing lysimetry for measuring water loss by turfgrass. South-central Section, Geological Society of America, Austin, TX. (Invited).
- 10 Young, M.H., P.J. Wierenga. 1995. Time domain reflectometry for monitoring water use and salinity in turf. Extended abstract. Proceedings of 8th Annual Symposium of Arizona Hydrological Society. 14-16 September, Tucson, AZ.
- 9 Young, M.H., P.J. Wierenga, C.F. Mancino. 1995. Time domain reflectometry for measuring water use and salinity in turf. Agron. Abs., Am. Soc. Agron., Madison. WI.
- 8 Fleming, J.B. , A.W. Warrick, M.H. Young, 1995. Three-dimensional water and solute movement in large laboratory columns. Agron. Abs., Am. Soc. Agron., Madison. WI.
- 7 Hendrickx, J.M.H., P. Hollanders, E. Van Zanten, P.J. Wierenga, M.H. Young, A. Osuna, T.L. Jones, J. Van Dam. 1995. Measurement and simulation of recharge rates in a bare arid soil using long

- term lysimeter data. Agron. Abs., Am. Soc. Agron., Madison. WI.
- 6 Otto, D.K., P.J. Brown, C.F. Mancino, M.H. Young, P.J. Wierenga. 1995. Development of turfgrass crop coefficients for the desert southwest. Agron. Abs., Am. Soc. Agron., Madison. WI.
 - 5 Pan, L.H., M.H. Young, H. Wyckoff, P.J. Wierenga. 1995. Inverse method for saturated and unsaturated hydraulic property determination from upward flow data. Agron. Abs., Am. Soc. Agron., Madison. WI.
 - 4 Young, M.H., J.B. Fleming, P.J. Wierenga, A.W. Warrick. 1994. Rapid laboratory calibration of TDR probes using upward infiltration. Agron. Abs., Am. Soc. Agron., Madison. WI.
 - 3 Young, M.H., P.J. Wierenga. 1993. Weighing lysimeters for water use and transport studies. Agron. Abs., Am. Soc. Agron., Madison. WI.
 - 2 Wierenga, P.J., M.H. Young, R.G. Hills. 1993. Site characterization at the Las Cruces trench site, presented at the 13th Annual DOE Low-level Radioactive Waste Management Conference, Phoenix, Arizona.
 - 1 Young, M.H., P.J. Wierenga, R.G. Hills. 1992. Field evidence for piston flow at the Las Cruces trench site, Las Cruces, N.M. American Geophysical Union. Fall Meeting. San Francisco, CA.

Teaching:

- 2012 - Vadose Zone Processes in Ecohydrology – University of Texas at Austin, Dept. of Geological Sciences, Student Evaluation: 3.65/4.00
- 2009 - Geol-719, Introduction to Vadose Zone Hydrology, UNLV, Dept. Geosciences, Spring, Student Evaluation: not available
- 2008 - Geol 792, Ecohydrology of Arid Lands, UNLV, Dept. Geosciences, Spring, Student Evaluation: 4.71/5.00
- 2007 - GEY-719, Introduction to Vadose Zone Hydrology, UNLV, Dept. Geosciences, Spring, Student Evaluation: 3.80/4.00
- 2005 - GEY-719, Introduction to Vadose Zone Hydrology, UNLV, Dept. Geosciences, Fall, Student Evaluation: 3.78/4.00
- 2004 - GEY-719, Introduction to Vadose Zone Hydrology, UNLV, Dept. Geosciences, Spring, Student Evaluation: 3.85/4.00

Students:

Advised/co-Advised:

- Justin Thompson, PhD, Jackson School of Geosciences, UT Austin, ongoing
- Juan Acevedo, MS, Energy and Earth Resources, UT Austin, ongoing
- Chuck Abolt, PhD, Jackson School of Geosciences, UT Austin (MS 2015), 2019
 Awarded Jackson School Fellowship (1-year)
 Awarded GSA Travel Grant (1-year)
 Awarded NASA National Earth and Space Sciences Fellowship (2-year)
- Jake Gearon, BS, Jackson School of Geosciences, UT Austin, 2019
- Jacob Anderson, PhD, Jackson School of Geosciences, UT Austin, 2017
 Awarded UT President Endowed Dissertation Writing Award
- Jon Paul Pierre, MS, Energy and Earth Resources, UT Austin, 2014
- Sean Porse, MS, Jackson School of Geosciences, UT Austin, 2012
 Awarded Presidential Management Internship
- Kerstan Wallace, MS, Jackson School of Geosciences, UT Austin, 2013
- Marlo Gaway, MS, Jackson School of Geosciences, UT Austin, 2013
- Mary Hingst, MS, Jackson School of Geosciences, UT Austin 2013
- Todd Caldwell, PhD, UNR Graduate Program Hydrologic Sciences (GPHS), 2011

William Meyer, MS, UNLV, Civil Engineering, co-advisor with Sajjad Ahmad, 2010
Christopher Evans, MS, UNLV Geosciences, co-advisor with Michael Nicholl, 2009
Jun Yin, PhD, UNLV, Geological Sciences, co-advisor with Zhongbo Yu, 2008
Winner of Best PhD Dissertation for College of Science, 2008
Amanda Brandt, MS, UNLV – Water Resources Mgmt (WRM), co-advisor with Dave Kreamer, 2008
Todd Arrowood, MS, UNLV Geosciences, co-advisor with Zhongbo Yu, 2007
Ernesto Moran, MS, UNLV Geosciences, co-advisor with Zhongbo Yu, 2006
Winner of Best MS Thesis for College of Science, 2007
Darren Meadows, PhD, UNR Graduate Program in Hydrologic Sciences, 2005
Awarded the Guinn Fellowship (1-year)
Awarded Maxi Fellowship (3-years)

Committee Member/Wildcard:

Simone Puel, PhD, Jackson School of Geosciences, UT Austin, 2019
Mike O'Connor, PhD, Jackson School of Geosciences, UT Austin (MS 2014), 2019
Maryia Halubok, PhD, Jackson School of Geosciences, UT Austin, 2016
Banyan Yan, PhD, Jackson School of Geosciences, UT Austin, 2016
James Proffit, PhD, Jackson School of Geosciences, UT Austin, 2014
Brenda Okafor, MS, Jackson School of Geosciences, UT Austin, 2014
Brendan Murphy, PhD, Jackson School of Geosciences, UT Austin, 2013
Lena Wright, MS, UNLV Water Resources Management, 2012
Jeevan Jayakody, MS, UNLV Geosciences, 2010
Margaret Shanafield, PhD, UNR Hydrologic Sciences, 2010
Wenming Wie, MS, UNLV Geosciences, 2010
Mark Hausner, MS, UNR Hydrologic Sciences, 2010
Joseph Asante, PhD, UNLV Geosciences, 2010
Ben Conrad, PhD, UNLV School of Life Sciences, 2009
Stephanie Labahn, MS, UNLV School of Life Sciences, 2008
Alexander Lutz, PhD, UNR Hydrologic Sciences, 2007
Brian Bird, MS, UNLV Water Resources Management, 2007
Stephen Ofosu, MS, UNR Hydrologic Sciences, 2005
Weiquan Dong, PhD, UNLV Geosciences, 2005
Geoff Webb, MS, UNR Hydrologic Sciences, 2003