David A. Kaplan

Engineering School of Sustainable Infrastructure and the Environment
Environmental Engineering Sciences, University of Florida, Gainesville, FL 32601
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EDUCATION

Ph.D. in Agricultural and Biological Engineering
University of Florida — Gainesville, FL — May 2010

B.S. in Agricultural and Biological Engineering
Cornell University (*cum laude*) — Ithaca, NY — May 2000

RESEARCH AND PROFESSIONAL EXPERIENCE

Assistant Professor, Dept. of Environmental Engineering Sciences, University of Florida — 2012 – Present
- Director, Howard T. Odum Center for Wetlands — 2016 – Present
- Assistant Director, Howard T. Odum Center for Wetlands — 2012 – 2016
- Affiliated Faculty, UF Water Institute, UF School of Natural Resources & Environment, UF Tropical Conservation and Development Program, UF Center for Latin American Studies

Adjunct Lecturer, Dept. of Agricultural and Biological Engineering, University of Florida — 2012

Postdoctoral Research Associate, School of Forest Resources and Conservation, Ecohydrology Laboratory, University of Florida — 2010 - 2012

Graduate/Postgraduate Research Assistant, Dept. of Agricultural and Biological Engineering, University of Florida — 2005 - 2010

Natural Resources Project Manager, New York City Dept. of Parks and Recreation — 2001 - 2005

National Science Foundation Fellow, Department of Biological Systems Engineering, Virginia Tech State University — 1999

PUBLICATIONS (*Graduate Student; **Postdoctoral Associate/Visiting Scholar; ***Undergraduate Student)

Refereed Publications

Doria, C.R.C, S. Athayde, E.E. Marques, M.A.L. Lima, J. Dutka-Gianelli, M.L. Ruffino, **D. Kaplan**, C. Freitas, and V. Isaac. *In review*. The invisibility of fisheries in the process of hydropower development across the Amazon. *Ambio* MS# S-17-00037 (revised 19 Jun 2017).

Timpe, K.* and **D. Kaplan**. *In press*. The changing hydrology of a dammed Amazon. *Science Advances* MS# D-17-00611 (accepted 7 Oct 2017).

Larsen, L., J. Ma, and **D. Kaplan**. *In press.* How important is connectivity for surface-water fluxes? A generalized expression for flow through heterogeneous landscapes. *Geophysical Research Letters* MS# 2017GL072868 (accepted 26 Sep 2017).

Jones, C., D. McLaughlin, K. Henson*, C. Haas, and **D. Kaplan**. *In press*. From Salamanders to Greenhouse Gases: Does upland management affect wetland function. *Frontiers in Ecology and the Environment* MS# FEE17-0125 (accepted 17 Jul 2017).

Benjamin, J.*** and **D. Kaplan**. *In press.* Development of a Fine-scale Laser-based Water Level Sensor. Journal of Undergraduate Research (accepted 8 Jun 2017).

Lima, M.A.L.**, **D. Kaplan**, and C. Doria. 2017. Hydrological controls of fisheries production in a major Amazonian tributary. *Ecohydrology* 2017:e1899. DOI: https://doi.org/10.1002/eco.1899.

Langston, A.*, **D. Kaplan**, and F. Putz. 2017. A casualty of climate change? Loss of freshwater forest islands on Florida's Gulf Coast. *Global Change Biology* 00 (1–14).DOI: https://doi.org/10.1111/gcb.13805.

Acharya, S.**, **D. Kaplan**, J. Jawitz, and M. Cohen. 2017. Doing Ecohydrology Backward: Inferring Historical Everglades Flow from Landscape Patterns. *Water Resources Research* 53 DOI:10.1002/2017WR020516.

Langston, A.*, **D. Kaplan**, and C. Angelini, C. 2017 Predation restricts black mangrove (*Avicennia germinans*) colonization at its northern range limit along Florida's Gulf Coast. *Hydrobiologia* 803: 317. DOI:10.1007/s10750-017-3197-0.

Su, F.**, **D. Kaplan**, L. Li , H. Li , F. Song, and H. Liu. 2017. Identifying and classifying pollution hotspots to guide watershed management in a large multiuse watershed. *International Journal of Environmental Research and Public Health (MDPI)* 14(260). DOI:10.3390/ijerph14030260.

White, E.* and **D. Kaplan.** 2017. Restore or Retreat? Saltwater Intrusion and Water Management in Coastal Wetlands. *Ecosystem Health and Sustainability (ESA)*3(1): e01258. DOI: 10.1002/ehs2.1258.

Kaplan, D., M. Olabarrieta, P. Frederick, and A. Valle-Levinson. 2016. Freshwater Detention by Oyster Reefs: Quantifying a keystone ecosystem service. PLOS ONE 11(12): e0167694. DOI:10.1371/journal.pone.0167694.

Casey, S., M.J. Cohen, S. Acharya.**, **D. Kaplan**, and J. Jawitz. 2016. Hydrologic controls on aperiodic spatial organization of the ridge–slough patterned landscape, *Hydrology and Earth System Sciences* 20:1–11. doi:10.5194/hess-20-1-2016.

Johnson, A.***, N. Reaver*, and **D. Kaplan**. 2016. Evaluating the Raz-Rru tracer system for use in Florida Springs. *Journal of Undergraduate Research* 17(3)1-6.

Tucker Lima, J.M., D. Valle, E. Mateus Moretto, L.E. Cordeiro Beduschi, E. Albiach Branco, V.L. da Silva Carvalhaes, C.P. Franco Okamoto, A. Salles Praia, S.M. Paiva Pulice, D. Rondinelli Roquetti, N. Lucia Zuca, B. Barbezani***, E. Labandera***, K. Timpe*, and **D. Kaplan**. 2016. A social-ecological database to advance research on infrastructure development impacts in the Brazilian Amazon. *Nature – Scientific Data* 3: 160071. DOI:10.1038/sdata.2016.71.

Palacio, D.*, **D. Kaplan**, and J. Mossa. 2016. A synthesis of stream restoration efforts in Florida (USA). *River Research and Applications* 32(7):1555-1565. DOI:10.1002/rra.3014.

Watts, A., C. Schmidt, D. McLaughlin, and **D. Kaplan**. 2015. Hydrologic implications of smoldering fires in wetland landscapes. *Freshwater Science* 34(4):1394-1405. DOI:10.1086\683484.

Yuan, J., M. Cohen, **D. Kaplan**, S. Acharya**, L. Larsen, and M. Nungesser. 2015. Linking metrics of landscape pattern to hydrological process in a lotic wetland. *Landscape Ecology* 219:1-20. DOI:10.1007/s10980-015-0219-z.

Acharya, S.**, **D. Kaplan**, S. Casey, M.J. Cohen, and J. Jawitz. 2015. Coupled local facilitation and global hydrologic inhibition drive landscape geometry in a patterned peatland, Hydrology and Earth System Sciences 19, 2133-2144. DOI:10.5194/hess-19-2133-2015.

Blair, S., C. Adams, T. Ankersen, M. McGuire, and D. Kaplan. 2015. Ecosystem services valuation for estuarine and coastal restoration in Florida. Florida Sea Grant /IFAS Extension Publication TP-204. University of Florida, Gainesville. http://edis.ifas.ufl.edu/sg134.

Zhang, Y.**, R. Wang, **D. Kaplan**, and J. Liu. 2015. Which components of plant diversity are most correlated with ecosystem properties? A case study in a restored wetland in northern China. *Ecological Indicators*, 49:228-236. DOI:10.1016/j.ecolind.2014.10.001.

McLaughlin, D., **D. Kaplan**, and M.J. Cohen. 2014. A Significant Nexus: Geographically Isolated Wetlands Influence Landscape Hydrology. *Water Resources Research* 50:7153–7166. DOI:10.1002/2013WR015002.

Kaplan, D., M. Bachelin, C. Yu, R. Muñoz-Carpena, T. Potter, and W. Rodríguez Chacón. 2014. A hydrologic tracer study in a small, natural wetland in the humid tropics of Costa Rica. *Wetlands Ecology and Management*. DOI:10.1007/s11273-014-9367-1.

McLaughlin, D., M. Carlson Mazur, **D. Kaplan**, and M. Cohen. 2014. Estimating effective specific yield in inundated conditions: a comment on a recent application. *Ecohydrology.* DOI:10.1002/eco.1522.

Watts, A., D. Watts, M. Cohen, J. Heffernan, D. McLaughlin, J. Martin , **D. Kaplan**, A. Murray, T. Osborne, and L. Kobziar. 2014. Evidence of biogeomorphic patterning in a low-relief karst landscape. *Earth Surface Processes and Landforms.* DOI:10.1002/esp.3597.

Kaplan, D. and R. Muñoz-Carpena. 2014. Groundwater salinity in a floodplain forest impacted by saltwater intrusion. *Journal of Contaminant Hydrology* 169:19-36. DOI:10.1016/j.jconhyd.2014.04.005.

Campo-Bescos, M., R. Muñoz-Carpena, **D. Kaplan**, J. Southworth, L. Zhu, and P. Waylen. 2013. Beyond precipitation: Physiographic thresholds dictate the relative importance of environmental drivers on savanna vegetation. *PLOS ONE* 8(8):e72348. doi:10.1371/pone.0072348.

McLaughlin, D.L., **D. Kaplan**, and M.J. Cohen. 2013. Managing Forests for Increased Regional Water Yield. *Journal of the American Water Resources Association* 49(4):953-965. doi:10.1111/jawr.12073.

Kaplan, D., R. Paudel, M. Cohen, and J. Jawitz. 2012. Orientation matters: Patch anisotropy controls discharge competence and hydroperiod in a patterned peatland. *Geophysical Research Letters* 39, L17401. doi:10.1029/2012GL052754.

Kaplan, D., M. Bachelin*, R. Muñoz-Carpena, and W. Rodríguez Chacón. 2011. Hydrological importance and water quality treatment potential of a small freshwater wetland in the humid tropics of Costa Rica. *Wetlands* 31(6):117-1130. doi:10.1007/s13157-011-0222-3.

Kaplan, D. and R. Muñoz-Carpena. 2011. Complementary effects of surface water and groundwater on soil moisture dynamics in a degraded coastal floodplain forest. *Journal of Hydrology* 398(3-4):221-234. doi:10.1016/j.jhydrol.2010.12.019.

Mortl, A., R. Muñoz-Carpena, and **D. Kaplan**. 2011. Calibration of a combined dielectric probe for soil moisture and porewater salinity measurement in three southeastern (USA) coastal floodplain soils. *Geoderma* 161(1-2):50-62. doi:10.1016/j.geoderma.2010.12.007.

Kaplan, D., R. Muñoz-Carpena, and A. Ritter. 2010. Untangling complex shallow groundwater dynamics in the floodplain wetlands of a southeastern U.S. coastal river. *Water Resources Research* 46, W08528. doi:10.1029/2009WR009038.

Kaplan, D., R. Muñoz-Carpena, Y. Wan, M. Hedgepeth, F. Zheng, R. Roberts, and R. Rossmanith. 2010. Linking river, floodplain, and vadose zone hydrology to improve restoration of a coastal river impacted by saltwater intrusion. *Journal of Environmental Quality* 39(5):1570-1584. doi:10.2134/jeq2009.0375.

Kaplan, D., R. Muñoz-Carpena, Y.C. Li, Y. Wan, M. Hedgepeth, R. Roberts. 2008. Altered Hydroperiod and Saltwater Intrusion in the Bald Cypress Swamps of the Loxahatchee River. In: *Proceedings of the 20th Salt Water Intrusion Meeting*, Naples, Florida, June 2008. pp. 109-112.

Kaplan, D., R. Muñoz-Carpena, A. Mortl, Y.C. Li. 2007. Humedad y salinidad del suelo en un pantano de ciprés calvo (*Taxodium distichum*) impactado por intrusión de agua salina. In: J.V. Giráldez Cervera and F.J. Jiménez Hornero (eds.) *Estudios de la Zona No Saturada del Suelo Vol. VIII*, pp. 257-266. Cordoba (Spain). ISBN: 84-690-7893-8.

Masters, A., K.A. Flahive, S. Mostaghimi, D.H. Vaughan, A. Mendez, M. Peterie, S. Radke, A. Davisson, M. Hunter, and **D. Kaplan.** 2000. A comparative investigation of the effectiveness of polyacrylamide (PAM) for erosion control in urban areas. In: *Proceedings of the 2000 ASAE Annual International Meeting*, Milwaukee, WI, July 2000. pp. 1-22.

Presentations and Posters (since 2012)

Kaplan, D. 2017. Going Dry in the Land of Water? Florida's Hydrological History & Ideas for Avoiding a Future Water Crisis. University of Florida. Invited talk at the Environmental and Global Health Seminar Series, October 2017, Gainesville, FL.

White Jr. E. *, **D. Kaplan**, and B. Middleton. 2017. Stochastic Weather and Climate Impacts on Groundwater Salinity in Coastal Baldcypress Swamps. Society of Wetland Scientists Annual Meeting, June 2017, San Juan, Puerto Rico.

Langston, A.* and **D. Kaplan**. 2017. Propagule density threshold for overcoming predation pressure in areas of black mangrove (*Avicennia germinans*) expansion. Society of Wetland Scientists Annual Meeting, June 2017, San Juan, Puerto Rico.

Glodzik, K.* and **D. Kaplan**. 2017. Untangling trends and drivers of changing river discharge along Florida's gulf coast. Society of Wetland Scientists Annual Meeting, June 2017, San Juan, Puerto Rico.

Acharya. S.**, M.J. Cohen, **D. Kaplan** and D. McLaughlin. Water use by Forests: Determination of interception losses using near-surface soil-moisture data. Unsaturated Zone Interest Group Workshop 2017, Apr 04-06, Gainesville Florida, USA.

Glodzik, K.* and **D. Kaplan**. 2017. Mapping ghost forests and identifying geographical predictors of salinity stress. Invited talk at the Southern Group of State Foresters GIS Committee Annual Meeting, February 2017, Raleigh, NC.

Langston, A.*, **D. Kaplan**, and C. Angelini. 2017. Biotic and abiotic controls on the northern range expansion of black mangroves (*Avicennia germinans*). UF/IFAS Nature Coast Biological Station Big Bend Science Symposium, February 2017, Cedar Key, FL.

Langston, A.*, T. Ankersen, and **D. Kaplan**. 2017. Preparing for the Future: Integrating Science into Rural Coastal Community Comprehensive Planning. Poster at the UF/IFAS Nature Coast Biological Station Big Bend Science Symposium, February 2017, Cedar Key, FL.

Glodzik, K.* and **D. Kaplan**. 2017. Understanding coastal forest die-off in the Lower Suwannee NWR: Influence of geographical characteristics. Poster at the Big Bend Science Symposium, February 2017, Cedar Key, FL.

Kaplan, D., M. Olabarrieta, P. Frederick, and A. Valle-Levinson. 2017. Freshwater Detention by Oyster Reefs: Quantifying a keystone ecosystem service. Big Bend Science Symposium, February 2017, Cedar Key, FL.

Kaplan, D., P. Sucsy, E. Carter, N. Reaver*, J. Stewart, and Y. Zhang. 2017. Quantifying Silver River Hydraulics and Hydrodynamics. Year 3 Spring Meeting of the SJRWMD-UF Springs Protection Initiative Science/Collaborative Research Initiative on Sustainability and Protection of Springs, March 2017, Palatka, FL.

Langston, A.* and **D. Kaplan**. 2017. Effects of climate change and crabs on mangrove colonization along the Nature Coast. Friends of the Withlacoochee Gulf Preserve Talk Series, March 2017, Yankeetown, FL.

Langston, A.*, T. Ankersen, and **D. Kaplan**. 2017. Natural Resource Adaptation Action Areas: Incorporating sea level rise adaptation into rural coastal community comprehensive planning. UF

Levin College of Law 23rd Annual Public Interest Environmental Conference, February 2017, Gainesville, FL.

Glodzik, K.* and **D. Kaplan**. 2017. Understanding coastal forest die-off in the Lower Suwannee NWR: Influence of geographical characteristics. Poster at the University of Florida Engineering School of Sustainable Infrastructure and Environment Annual Poster Symposium, February 2017, Gainesville, FL.

Al-Quraishi, A.* and **D. Kaplan**. 2017. Ecohydrological Degradation and Restoration of the Western Mesopotamian Marshlands. Poster at the University of Florida Engineering School of Sustainable Infrastructure and Environment Annual Poster Symposium, February 2017, Gainesville, FL.

Benjamin, J.* and **D. Kaplan**. 2017. Development of a Laser-Based Water Level Sensor for Fine-Scale Ecohydrological Measurements. Poster at the Florida Undergraduate Research Conference, February 2017, Boca Raton, FL.

Kaplan, D., M. Olabarrieta, P. Frederick, and A. Valle-Levinson. 2017. Freshwater Detention by Oyster Reefs: Quantifying a keystone ecosystem service. Big Bend Science Symposium, February 2017, Cedar Key, FL.

Casey, S., M. Cohen, S. Acharya**, **D. Kaplan**, and J. Jawitz. 2016. Power Law Patch Scaling and Lack of Characteristic Wavelength Suggest "Scale-Free" Processes Drive Pattern in the Florida Everglades. Poster at the American Geophysical Union Fall Meeting, December 2016, San Francisco, CA.

Larsen, L., J. Ma, **D. Kaplan**, J. Harvey, S. Newman, C. Saunders, and J. Choi. 2016. Role of structural and functional connectivity in wetland ecogeomorphic feedbacks. ***Invited*** talk at the American Geophysical Union Fall Meeting, December 2016, San Francisco, CA.

Kaplan, D., M. Olabarrieta, P. Frederick, and A. Valle-Levinson 2016. Oyster Reefs Support Coastal Resilience by Altering Nearshore Salinity: An Observational and Modeling Study to Quantify a "Keystone" Ecosystem Service. Poster at the American Geophysical Union Fall Meeting, December 2016, San Francisco, CA.

Timpe, K.* and **D. Kaplan**. 2016. Ecohydrology of a dammed Amazon. Poster at the American Geophysical Union Fall Meeting, December 2016, San Francisco, CA.

Lima, M.A.L.**, **D. Kaplan**, and C. Doria. 2016. Temporal Trends and Hydrological Controls of Fisheries Production in the Madeira River (Brazil). Poster at the American Geophysical Union Fall Meeting, December 2016, San Francisco, CA.

McLaughlin, D., N. Jones, K. Henson*, and **D. Kaplan**. 2016. From Salamanders to Greenhouse Gas Emissions: Effects of Upland Management on Wetland Functions. Poster at the American Geophysical Union Fall Meeting, December 2016, San Francisco, CA.

Nelson, N., R. Muñoz-Carpena, **D. Kaplan**, and E. Phlips. 2016. Uncovering cyanobacteria ecological networks from long-term monitoring data using Granger causality analysis. Poster at the American Geophysical Union Fall Meeting, December 2016, San Francisco, CA.

Glodzik, K.* and **D. Kaplan**. 2016. Forecasting coastal forest die-off in the Lower Suwannee Refuge: Influence of Climate Drivers. Annual Meeting of the American Water Resources Association, November 2016, Orlando, FL.

Glodzik, K.* and **D. Kaplan.** 2016. Forecasting coastal forest die-off in the Lower Suwannee Refuge: Influence of Climate Drivers. Joint Meeting of the Gulf Estuarine Research Society and Society of Wetland Scientists South Atlantic Chapter, November 2016, Pensacola Beach, FL.

Kaplan, D. 2016. Ecohydrology of a dammed Amazon. ***Invited*** talk at the University of Florida Biocomplexity Seminar, October 2016, Gainesville, FL.

Kaplan, D. 2016. Upland-Wetland Connections. ***Invited*** talk at the 2016 Wetland Reserve Easement Partners Planning Workshop, October 2016, Gainesville, FL.

Langston, A.* and **D. Kaplan**. 2016. Planning for the future: Climate-change induced reassembly trajectories along the Big Bend coast of Florida. Society of Ecological Restoration Southeast Chapter Annual Symposium, October 2016, Quincy, FL.

Kaplan D., P. Sucsy, E. Carter, N. Reaver*, J. Stewart, and Y. Zhang. 2016. Quantifying Silver River Hydraulics and Hydrodynamics. Year 2 Fall Meeting of the SJRWMD-UF Springs Protection Initiative Science/Collaborative Research Initiative on Sustainability and Protection of Springs, September 2016, Gainesville, FL.

Reaver, N.* and **D. Kaplan**. 2016. Measuring changes in spring run reach-scale transport properties under different flow conditions. Poster at the 2nd Annual Meeting of the SJRWMD/UF Collaborative Research Initiative on Springs Protection and Sustainability (CRISPS) Program, September 2016, Gainesville, FL.

Reaver, N.* and **D. Kaplan**. 2016. Measuring changes in spring run reach-scale transport properties under different flow conditions. Poster at the AEESP Distinguished Lecture and Poster Session, September 2016, Gainesville, FL.

Kaplan, D. 2016. Socio-ecohydrology of a dammed Amazon. ***Invited*** talk at the University of South Florida Geoscience Colloquium, September 2016, Tampa, FL.

Langston, A.* and **D. Kaplan**. 2016. Investigating Top-down and Bottom-up Influences on Black Mangrove (*Avicennia germinans*) Encroachment in Forested Freshwater Islands Along the Big Bend Coast of Florida. Poster at the Association of Environmental Engineering & Science Professors Distinguished Lecture & Poster Session, September 2016, Gainesville, FL.

Crouch, T.*, S. Marconi, **D. Kaplan**. 2016. AEESP Distinguished Lecture & Poster Session 2016, September 2016, Gainesville, FL.

Benjamin, J.*** and **D. Kaplan**. 2016. Development of a Laser-Based Water Level Sensor for Fine-Scale Ecohydrological Measurements. Poster at the AEESP Distinguished Lectureship Workshop, September 2016, Gainesville, FL.

Langston, A.* and **D. Kaplan**. 2016. Top-down ecological controls limit climate change induced expansion of black mangroves (*Avicennia germinans*). Ecological Society of America Annual Meeting, August 2016, Fort Lauderdale, FL.

Benjamin, J.*** and **D. Kaplan**. 2016. Development of a Laser-Based Water Level Sensor for Fine-Scale Ecohydrological Measurements. UF Ronald E. McNair Scholars Summer Research Symposium, August 2016, Gainesville, FL.

Kaplan, D., M. Olabarrieta, P. Frederick, and A. Valle-Levinson 2016. Freshwater detention by oyster reefs: Quantifying a keystone ecosystem service. ***Invited*** talk at the Annual International Meeting of the American Society of Agriculture and Biological Engineers, July 2016, Orlando, FL.

Acharya, S.**, M. Cohen, **D. Kaplan**, and D. McLaughlin. 2016. Evapotranspiration Estimation from Soil Profile Moisture Data: Potential Pitfalls and Solutions. Annual International Meeting of the American Society of Agriculture and Biological Engineers, July 2016, Orlando, FL.

Nelson, N., R. Munoz-Carpena, **D. Kaplan**, and E. Phlips. 2016. Making sense of freshwater cyanobacteria monitoring data using a time-varying Granger causality approach. Annual International Meeting of the American Society of Agriculture and Biological Engineers, July 2016, Orlando, FL.

Langston, A.* and **D. Kaplan**. 2016. Investigating top-down and bottom-up influences on black mangrove (*Avicennia germinans*) encroachment in forested freshwater islands along the Big Bend coast of Florida. 4th Mangrove & Macrobenthos Meeting, July 2016, St. Augustine, FL.

Langston, A.* and **D. Kaplan.** 2016. Patterns of Coastal Forest Decline and Expansion Along the Big Bend Coast of Florida. Society of Wetland Scientists Annual Meeting, June 2016, Corpus Christi, TX.

White, E.*, **D. Kaplan**, and B. Middleton. 2016. Investigating the Impacts of Chronic Low-level Salinity on the Productivity and Resilience of Coastal Baldcypress (*Taxodium distichum*) Swamps. Poster at the Society of Wetland Scientists Annual Meeting, June 2016, Corpus Christi, TX.

McLaughlin, D., **D. Kaplan**, N. Jones, C. Schmidt, A. Watts, K. Henson*. 2016. Feeling the Burn: Hydrologic Impacts of Fire in Wetlands and their Surrounding Uplands. Society of Wetland Scientists Annual Meeting, June 2016, Corpus Christi, TX.

Nelson, N., R. Muñoz-Carpena, **D. Kaplan**, and E. Phlips. 2016. Managing Cyanobacteria In The Subtropics: Causal Analysis Of Temporal Shifts In Cyanobacteria Driver Importance. Association for the Sciences of Limnology and Oceanography Summer Meeting, June 2016, Santa Fe, NM.

Benjamin, J.*** and **D. Kaplan**. 2016. Development of a Fine-Scale Laser-Based Water Level Sensor. Poster at the 2016 SAEOPP McNair/SSS Scholars Research Conference, June 2016, Atlanta, Ga.

Kaplan, D., J.M. Tucker Lima, D. Valle, E. Mateus Moretto, L.E. Cordeiro Beduschi, E. Albiach Branco, V.L. da Silva Carvalhaes, C.P. Franco Okamoto, A. Salles Praia, S.M. Paiva Pulice, D. Rondinelli Roquetti, N. Lucia Zuca, B. Barbezani***, E. Labandera***, and K. Timpe*. 2016. A social-ecological database to advance research on the effects of infrastructure development in the Brazilian Amazon. American Association of Geographers Annual Meeting, March 2016, San Francisco, CA.

Timpe, K.* and D. Kaplan. 2016. Quantifying the hydrological impacts of damming the Amazon. American Association of Geographers Annual Meeting, March 2016, San Francisco, CA.

Kaplan D., P. Sucsy, and N. Reaver*. 2016. Collaborative Research Initiative on Sustainability and Protection of Springs: Quantifying Silver River Hydraulics and Hydrodynamics. Year 2 Spring Meeting of the SJRWMD-UF Springs Protection Initiative Science/Collaborative Research Initiative on Sustainability and Protection of Springs (SPIS-CRISPS), March 2016, Palatka, FL.

Kaplan, D., M. Olabarrieta, P. Frederick, and A. Valle-Levinson. 2016. Restored oyster reefs enhance estuarine ecosystem services by altering nearshore salinity. ***Invited*** talk at the UF Department of Fisheries and Aquatic Science, March 2016, Gainesville FL.

Kaplan D., P. Sucsy, and N. Reaver*. 2016. Collaborative Research Initiative on Sustainability and Protection of Springs: Quantifying Silver River Hydraulics and Hydrodynamics. 5th UF Water Institute Symposium: Trends, Cycles and Extreme Events, February 2016, Gainesville, FL.

Kaplan, D., M. Olabarrieta, P. Frederick, and A. Valle-Levinson. 2016. Oyster Reefs Impact Estuarine Salinity Over Large Spatial Scales. 5th UF Water Institute Symposium: Trends, Cycles and Extreme Events, February 2016, Gainesville, FL.

Acharya, S.**, **D. Kaplan**, D. McLaughlin, and M. Cohen.2015. Estimating water yield from pine forests with different understory management strategies. The 5th University of Florida Water Institute Symposium: Trends, Cycle and Extreme Events, February 2016, Gainesville, FL.

Benjamin, J. and **D. Kaplan**. 2016. Development of a Fine-scale Laser-based Water Level Sensor. Poster at the 5th UF Water Institute Symposium: Trends, Cycles, and Extreme Events, February 2016, Gainesville, FL.

Timpe, K.*, and **D. Kaplan**. 2016. Quantifying the hydrologic impacts of Damming the Amazon. Poster at the 5th UF Water Institute Symposium: Trends, Cycles, and Extreme Events, February 2016, Gainesville, FL.

Reaver, N.* and **D. Kaplan**. 2016. How do spring run physical and transport properties vary under different flow conditions? Poster at the 5th UF Water Institute Symposium: Trends, Cycles and Extreme Events, February 2016, Gainesville, FL.

White Jr., E.*, D. Kaplan, and B. Middleton. 2016. Investigating the Impacts of Chronic Low-level Salinity on the Productivity and Resilience of Coastal Baldcypress (*Taxodium distichum*) Swamps. Poster at the 5th University of Florida Water Institute Symposium: Trends, Cycles, and Extreme Events, February 2016, Gainesville, FL

Henson, K.*, **D. Kaplan**, D. McLaughlin, N. Jones. 2016. The Effect of Different Management Techniques on the Hydrology, Flora, Fauna of Geographically Isolated Wetlands in Florida Pine Systems. Poster at the 5th UF Water Institute Symposium: Trends, Cycles and Extreme Events, February 2016, Gainesville, FL.

Langston, A.* and **D. Kaplan**. 2016. Sea Level Rise and the Future of Florida's Forested Freshwater Islands. Poster at the University of Florida Water Institute Symposium: Trends, Cycles and Extreme Events, February 2016, Gainesville, FL.

Glodzik, K.*, B. Pine, C. Reinhardt Adams, and **D. Kaplan**. 2016. Road impacts to salt marsh salinity and vegetation via interrupted surface flow: observations from two Big Bend sites. Poster at the 5th University of Florida Water Institute Symposium, February 2016, Gainesville, FL.

Crouch, T.*, S. Marconi, **D. Kaplan**. 2016. Use of MODIS Data for a Water Balance of a Large Sub-catchment of the Tapajós Basin. Poster at the 5th UF Water Institute Symposium: Trends, Cycles and Extreme Events, February 2016, Gainesville, FL.

White Jr., E.*, **D. Kaplan**, and B. Middleton. 2016. Crisis on the Coast: Will Baldcypress Swamps Live into the Next Century?. Cedar Key Library Speaker Series, February 2016, Cedar Key, FL

Benjamin, J. and **D. Kaplan**. 2016. Development of a Fine-scale Laser-based Water Level Sensor. Poster at the Florida Undergraduate Research Conference, February 2016, Tampa, FL.

Langston, A.* and **D. Kaplan**. 2016. Climate Change and the Future of Coastal Forests Along the Big Bend Coast of Florida. Poster at the University of Florida Engineering School of Sustainable Infrastructure and Environment Annual Poster Symposium, February 2016, Gainesville, FL.

Reaver, N.* and **D. Kaplan**. 2016. How do stream physical and transport properties vary under different flow conditions? Poster at the 18th Annual UF ESSIE Research Symposium: Trends, February 2016, Gainesville, FL.

White Jr., E.*, D. Kaplan, and B. Middleton. 2016. Investigating the Impacts of Chronic Low-level Salinity on the Productivity and Resilience of Coastal Baldcypress (*Taxodium distichum*) Swamps. Poster at the 18th Annual UF ESSIE Poster Symposium, February 2016, Gainesville, FL

Langston, A.* and **D. Kaplan**. 2016. Investigating top-down and bottom-up influences on black mangrove (*Avicennia germinans*) encroachment in forested freshwater islands along the Big Bend coast of Florida. Big Bend Science Symposium, January 2016, Cedar Key, FL.

Glodzik, K.*, B. Pine, C. Reinhardt Adams, and D**. Kaplan**. 2016. Road impacts to salt marsh salinity and vegetation via interrupted surface flow: observations from two Big Bend sites. Poster at the Big Bend Science Symposium, February 2016, Gainesville, FL.

White Jr., E.*, D. Kaplan, and B. Middleton. 2016. Investigating the Impacts of Chronic Low-level Salinity on the Productivity and Resilience of Coastal Baldcypress (*Taxodium distichum*) Swamps. Poster at the Big Bend Science Symposium/North Florida Marine Science Symposium, Jan. 2016, Cedar Key, FL

Larsen, L., J. Ma, and **D. Kaplan.** 2016. The role of vegetation patch spatial configuration in landscape-scale flow-vegetation-sediment feedbacks. ***Invited*** talk at the 2015 American Geophysical Union Fall Meeting, December 2015, San Francisco, CA.

Kaplan, D., D. McLaughlin, and M. Cohen. 2015. Geographically Isolated Wetlands Buffer Regional Water Table and Streamflow Variation. Society of Wetland Scientists South Atlantic Chapter Meeting, October 2015, Athens, GA.

Langston, A.* and **D. Kaplan**. 2015. A Casualty of Climate Change: Long-term Vegetation Trends in a Patchy Coastal Wetland. Poster at the Society of Wetland Scientists South Atlantic Chapter Meeting, October 2015, Athens, GA.

Henson, K.*, **D. Kaplan**, M. Cohen, D. McLaughlin, S. Acharya. 2015. Quantifying Water Yield in Florida Pine Systems. Society of Wetland Scientists South Eastern Conference, October 2015, Athens, GA.

White Jr., E.*, **D. Kaplan**, and B. Middleton. 2015. Investigating the Impacts of Chronic Low-level Salinity on the Productivity and Resilience of Coastal Baldcypress (*Taxodium distichum*) Swamps. Poster at the Society of Wetland Scientist South Atlantic Chapter Meeting, October 2015, Athens, GA.

Crouch, T.*, T. Melis, D. Kaplan. 2015. Applying Lessons from Adaptive Science and Management of Dams in the Arid Western U.S. to New Dams in the Amazonian Lowlands. Society of Wetland Scientists South Atlantic Chapter Meeting, October 26, Athens, GA.

Kaplan, D. and S. Athayde. 2015. Hydroelectric Dam Development in the Amazon: National and international contexts. University of Florida Amazon Seminar, October 2015, Gainesville, FL.

Langston, A.* **and D. Kaplan**. 2015. Climate change effects in the Big Bend region. Alachua Conservation Trust Speaker Series, October 2015, Gainesville, FL.

Kaplan, D. 2015. Restore or Retreat? Saltwater Intrusion and Water Management in Coastal Ecosystems. Water, Wetlands, and Watersheds Seminar, Center for Wetlands, University of Florida, October 2015, Gainesville, FL.

Kaplan, D. 2015. Going Dry in the Land of Water? Florida's Hydrological History and Looming Water Crisis. University of Florida Wetlands Club, October 2015, Gainesville FL.

Kaplan D., P. Sucsy, and N. Reaver. 2015. Springs Ecosystems Hydraulics and Hydrodynamics. Year 1 Annual Report and Public Meeting of the SJRWMD-UF Springs Protection Initiative Science/Collaborative Research Initiative on Sustainability and Protection of Springs (SPIS-CRISPS), September 2015, Gainesville, FL.

Reaver, N.* and **D. Kaplan**. 2015. Hydraulic controls on algal cover and distribution in spring-fed rivers. Poster at the 1st Annual Meeting of the SJRWMD/UF Collaborative Research Initiative on Springs Protection and Sustainability (CRISPS) Program, September 2015, Gainesville, FL.

Johnson, A.***, N. Reaver* and **D. Kaplan**. 2015. Evaluating the Raz-Rru system for use in identifying biogeochemical hotspots in spring-fed rivers. Poster at the 1st Annual Meeting of the SJRWMD/UF Collaborative Research Initiative on Springs Protection and Sustainability (CRISPS) Program, September 2015, Gainesville, FL.

Reaver, N.* and **D. Kaplan**. 2015. Measuring changes in spring run reach-scale transport properties under different flow conditions. Poster at the 1st Annual Meeting of the SJRWMD/UF Collaborative Research Initiative on Springs Protection and Sustainability (CRISPS) Program, September 2015, Gainesville, FL.

Kaplan, D. 2015. Restore or Retreat? Saltwater Intrusion and Water Management in Coastal Wetlands. ***Invited*** talk at the 2015 Society of Wetland Scientists Annual Meeting, June 2015, Providence RI.

Langston, A.* and **D. Kaplan**. 2015. A casualty of climate change: Long-term vegetation trends in a patchy coastal wetland. Society of Wetland Scientists Annual Meeting, June 2015, Providence, RI.

D. Kaplan, M. Cohen, S. Acharya**, S. Casey, J. Heffernan, J. Jawitz, J. Yuan, and D. Watts. 2015. Pattern and Process in the Everglades Ridge-Slough Landscape. ***Invited*** talk at the Greater Everglades Ecosystem Restoration Conference, April 2015, Coral Springs, FL.

Acharya, S.**, **D. Kaplan**, M. Cohen, and J. Jawitz. 2015. Simulating the effects of ridge elevation and geometry on ridge-slough landscape hydrology. Greater Everglades Ecosystem Restoration Conference, April 2015, Coral Springs, FL.

Kaplan, D. 2015. Agricultural Water Security and Upper Floridan Aquifer Sustainability: Incompatible Goals or Opportunities for Compromise? Case study presentation in the course Interdisciplinary Research and Practice. March 2015, University of Florida, Gainesville, FL.

Langston, A.* and **D. Kaplan**. 2015. A casualty of climate change: Long-term vegetation trends in a patchy coastal wetland. Poster at the University of Florida Engineering School of Sustainable Infrastructure & Environment Research Symposium, March 2015, Gainesville, FL.

Reaver, N.* and **D. Kaplan**. 2015. Hydraulic controls on algal cover and distribution in spring-fed rivers. Poster at the 17th Annual UF ESSIE Research Symposium, March 2015, Gainesville, FL.

Johnson, A.***, N. Reaver* and **D. Kaplan**. 2015. Evaluating the Raz-Rru system for use in identifying biogeochemical hotspots in spring-fed rivers. Poster at the 17th Annual UF ESSIE Research Symposium, March 2015, Gainesville, FL.

Henson, K.*, **D. Kaplan**, M. Cohen, D. McLaughlin, S. Acharya. 2015. Quantifying Water Yield in Florida Pine Systems. Poster at the 17th Annual UF ESSIE Research Symposium, March 2015, Gainesville, FL.

Kaplan, D. 2015. The Universal Soil Loss Equation. Guest lecture in the course Advanced Landscape Architectural Design. March 2015, University of Florida, Gainesville, FL.

Henson, K., **D. Kaplan**, M. Cohen, and D. McLaughlin, D. 2015. Quantifying Water Yield in Florida Pine Systems. Poster at the American Water Resources Association Spring Meeting 2015, Fort Meyers, FL.

Langston, A.* and **D. Kaplan**. 2015. A casualty of climate change: Long-term vegetation trends in a patchy coastal wetland. Poster at the American Water Resources Association: Annual Southwest Florida Water Resources Conference, February 2015, Fort Myers, FL.

Johnson, A.***, N. Reaver*, **D. Kaplan**. 2015. Evaluating the Raz-Rru system for use in identifying biogeochemical hot spots in springs. Poster at the Southwest Florida Water Resources Conference, February 2015, Fort Myers, FL.

Reaver, N.* and **D. Kaplan**. 2015. Hydraulic controls on algal cover and distribution in spring-fed rivers. Poster at the 24th Annual Southwest Florida Water Resources Conference, February 2015, Ft. Meyers, FL.

Kaplan, D., S. Acharya**, D. McLaughlin, M. Cohen. 2014. Looking for Water in the Woods: Quantifying the Potential for Forest Management to Increase Regional Water Yield. American Geophysical Union Fall Meeting, December 2014, San Francisco, CA.

Kaplan, D., M. Olabarietta, P. Frederick, A. Valle-Levinson, J. Seavey. 2014. Estuarine Freshwater Entrainment By Oyster Reefs: Quantifying A Keystone Ecosystem Service. Poster at the American Geophysical Union Fall Meeting, December 2014, San Francisco, CA.

Larsen, L. **D. Kaplan**, J. Yuan, J. Choi, J. Mia, J. Harvey. 2014. Directional landscape connectivity as a predictor of water and material fluxes and indicator of system dynamics in both aquatic and terrestrial landscapes. ***Invited*** poster at the American Geophysical Union Fall Meeting, December 2014, San Francisco, CA.

McLaughlin, D., **D. Kaplan**, M. Cohen. 2014. A Hydraulic Nexus between Geographically Isolated Wetlands and Downstream Water Bodies. ***Invited*** talk at the American Geophysical Union Fall Meeting, December 2014, San Francisco, CA.

Kaplan, D., S. Blair, C. Adams, T. Ankersen, M. McGuire. 2014. Valuation of ecosystem services provided by coastal ecosystem restoration. ***Invited*** talk at the Workshop: Plant selection for coastal restoration in the era of climate change, August 2014, Marineland, FL.

Kaplan, D., C. Schmidt, D. McLaughlin, A. Watts. 2014. "Pyro-eco-hydro-geomorphology": Implications of organic soil combustion on the hydrology and ecology of peat wetlands. International Conference on Ecological and Ecosystem Restoration: Elevating the Science and Practice of Restoration, July 2014, New Orleans, LA.

Kaplan, D. and K. Timpe*. 2014. Watershed Connections: Conexões de Bacias Hidrográficas. International Workshop: Integrating knowledge on hydroelectric dams in the Amazon: learning from the experiences of the Colorado, Madeira, and Tocantins Rivers, May 2014, Palmas, TO, Brazil.

Kaplan, D. 2014. Introduction to Dynamic Factor Analysis and Fish Population Modeling. International Workshop: Integrating knowledge on hydroelectric dams in the Amazon: learning from the experiences of the Colorado, Madeira, and Tocantins Rivers, May 2014, Porto Velho, RO, Brazil.

Kaplan, D., D. McLaughlin, and M. Cohen. 2014. Wood, Wildlife, and Water: Managing Forests for Multiple Benefits. ***Invited*** talk at the Environment, Engineering, and Landscapes Colloquium, Harvard University, Graduate School of Design, April 2014, Cambridge, MA.

Kaplan, D., D. McLaughlin, and M. Cohen. 2014. Low-budget, high-resolution: coupling soil moisture and shallow water table monitoring to quantify water use in southeastern (US) pine forests under varying land management. American Society of Agricultural and Biological Engineers International Conference, Evapotranspiration: Challenges in Measurement and Modeling from Leaf to the Landscape Scale and Beyond, April 2014, Raleigh, NC.

Kaplan, D., D. McLaughlin, and M. Cohen. 2014. Trading Wood for Water: Managing Forests for Increased Regional Water Availability. UF School of Natural Resources and Environment Seminar, March 2014, Gainesville, FL.

Langston, A.*, **D. Kaplan**, T. Ankersen, N. Barshel, S. Fida, and G. Davidson. 2014. Integrating science into comprehensive planning for sea level rise adaptation in rural coastal communities. Florida Society of Social Sciences Annual Conference of the Social Sciences. March 2014, Gainesville, FL.

Langston, A.*, **D. Kaplan**, T. Ankersen, N. Barshel, S. Fida, and G. Davison. 2014. Using blue infrastructure, adaptation science, and education-based tourism to develop adaptation planning in rural coastal communities. NOAA Social Coasts Forum, February 2014, Charleston, SC.

Kaplan, D., D. McLaughlin, and M. Cohen. 2014. Managing Forests for Increased Regional Water Availability. 4th UF Water Institute Symposium: Water Supply Planning in a Non-Stationary World, February 2014, Gainesville, FL.

McLaughlin, D., **D. Kaplan**, and M. Cohen. 2014. Evidence for a significant nexus between isolated wetlands and downstream water bodies. 4th UF Water Institute Symposium: Water Supply Planning in a Non-Stationary World, February 2014, Gainesville, FL.

Athayde, D., S. Bohlman, B. Loiselle, **D. Kaplan**, and J. Dukta-Gianelli. 2014. Amazon Dams Program: Advancing Integrative Research on Social-ecological Dynamics of Hydroelectricity Production in the Brazilian Amazon. 4th UF Water Institute Symposium: Water Supply Planning in a Non-Stationary World, February 2014, Gainesville, FL.

Langston, A.*, **D. Kaplan**, T. Ankersen, N. Barshel, and Saira Fida. 2014. Integrating science into comprehensive planning for sea level rise adaptation in rural coastal communities. Poster at the 4th UF Water Institute Symposium: Water Supply Planning in a Non-Stationary World, February 2014, Gainesville, FL.

Timpe, K.*, **D. Kaplan**, and S. Athayde. 2014. Assessing the effects of hydroelectric dam design on watershed hydrology and ecosystem services in the Amazon. Poster at the 4th UF Water Institute Symposium: Water Supply Planning in a Non-Stationary World, February 2014, Gainesville, FL.

Johnson, A.***, **D. Kaplan**, and R. Hensley. 2014. The Effect of Variable Hyporheic Exchange on Nitrate Removal in Florida Springs: A Smart Tracer Approach. Poster at the 4th UF Water Institute Symposium: Water Supply Planning in a Non-Stationary World, February 2014, Gainesville, FL.

Palacio, D.*, J. Mossa, and **D. Kaplan**. 2014. Stream Restoration in Florida. Poster at the 4th UF Water Institute Symposium: Water Supply Planning in a Non-Stationary World, February 2014, Gainesville, FL.

McLaughlin, D., **D. Kaplan**, and M. Cohen. 2013. Upland-wetland connectivity provides a significant nexus between isolated wetlands and downstream water bodies. American Geophysical Union Fall Meeting, December 2013, San Francisco, CA.

Watts, D., M. Cohen, **D. Kaplan**, and D. McLaughlin. 2013. Hidden Flows: Advection between topographic highs and lows in a patterned wetland. American Geophysical Union Fall Meeting, December 2013, San Francisco, CA.

Yuan, J., M. Cohen, **D. Kaplan**, S. Acharya**, L. Larsen, and M. Nungesser. 2013. Metrics to Describe the Effect of Landscape Pattern on Hydrologic Regime in a Lotic Wetland. Poster at the American Geophysical Union Fall Meeting, December 2013, San Francisco, CA.

Kaplan, D., D. McLaughlin, and M. Cohen. 2013. Evidence for a significant nexus between isolated wetlands and downstream water bodies. Water, Wetlands, and Watersheds Seminar, Center for Wetlands, University of Florida, October 2013, Gainesville, FL.

Sharp, S.*, **D. Kaplan**, and M. Brown. Relative elevation as the main inhibitor of tidal salt marsh recovery following restoration. Poster at the 2013 Southeast Regional Society of Wetland Scientists joint meeting, October 2013, Tampa, FL.

Southworth, J., C. Gibbes, P. Waylen, L. Rigg, L. Zhu, M. Camp-Bescos, R. Muñoz-Carpena, **D. Kaplan**, and L. Cassidy. 2013. Climate variability and vegetation change in southern Africa. Water, Wetlands, and Watersheds Seminar, Center for Wetlands, University of Florida, September 2013, Gainesville, FL.

Acharya, S.**, **D. Kaplan**, M. Cohen, J. Jawitz, and J. Heffernan. 2013. Pattern and flow in the Everglades: Defining landscape-scale hydraulic geometry. 5th National Conference on Ecosystem Restoration, July 2013, Chicago, IL.

Kaplan, D., R. Muñoz-Carpena, M. Campo-Bescos, and J, Southworth. 2013. Dynamic Factor Analysis of Environmental Systems II: Challenges and Advancements in Complex Systems. ***Invited*** talk at the XXIX European Meeting of Statisticians, July 2013, Budapest, Hungary.

Muñoz-Carpena, R., **D. Kaplan,** and A. Ritter. 2013. Dynamic Factor Analysis of Environmental Systems I: Introduction and Initial lessons learned. ***Invited*** talk at the XXIX European Meeting of Statisticians, July 2013, Budapest, Hungary.

Kaplan, D. and R. Muñoz-Carpena. 2013. Shallow Groundwater Salinity in a Coastal Floodplain Forest Impacted by Saltwater Intrusion. 8th IAHS International Groundwater Quality Conference: Managing Groundwater Quality to Support Competing Human & Ecological Needs, April 2013, Gainesville, FL.

Muñoz-Carpena, R. Campo-Bescos, M., **D. Kaplan**, J. Southworth, P. Waylen, E. Keys, B. Child, M. Binford, C. Gibbes, and L. Rigg. 2013. Beyond precipitation: Physiographic thresholds dictate the relative importance of environmental drivers on savanna vegetation. Poster at NASA Land-Cover/Land-Use Change Program Spring Science Team Meeting, April 2013, Rockville, MD.

Campo-Bescos, M., R. Muñoz-Carpena, **D. Kaplan**, and J. Southworth. 2013. Combined spatial and temporal effects of environmental covariates on NDVI in southern Africa savanna. Poster at the Sustaining Economies and Natural Resources in a Changing World: Key Role for Land Grant Universities Symposium, April 2013, Gainesville, FL.

McLaughlin, D., **D. Kaplan**, and M. Cohen. 2013. Managing Forests for increased water yield in the southeastern U.S. coastal plain. Poster at the Sustaining Economies and Natural Resources in a Changing World: Key Role for Land Grant Universities Symposium, April 2013, Gainesville, FL.

Watts, A., D. Watts, **D. Kaplan**, D. McLaughlin, J. Heffernan, J. Martin, A. Murray, T. Osborne, M. Cohen, and L. Kobziar. 2012. Landform elevation suggests ecohydrologic footprints in subsurface geomorphology. Poster at the American Geophysical Union Fall Meeting, December 2012, San Francisco, CA.

Kaplan, D., D. McLaughlin, and M. Cohen. 2012. Managing Forests for Increased Water Yield in Florida. American Water Resources Association Annual Conference, November 2012, Jacksonville, FL.

Kaplan, D. 2012. Linking river, floodplain, and vadose zone hydrology to improve restoration of a coastal river impacted by saltwater intrusion. ***Invited*** talk at the 1st Annual Coastal Environmental Soil Science Conference, November 2012, St. Augustine, FL.

Kaplan, D. 2012. Flow rating curves in the Everglades ridge and slough mosaic: exploring landscape-Scale hydraulic geometry. Water, Wetlands, and Watersheds Seminar, Center for Wetlands, University of Florida, October 2012, Gainesville, FL.

Kaplan D., D. Watts, J. Yuan, M. Cohen, and J. Heffernan. 2012. Hydrologic Processes in a Patterned Peatland. ***Invited*** talk at the 9th annual INTECOL Meeting, Wetlands in a Complex World, July 2012, Orlando, FL.

Kaplan, D., M. Bachelin, R. Muñoz-Carpena, T. Potter, and W. Rodríguez Chacón. 2012. Multiple tracer study in a small, natural wetland in the humid tropics of Costa Rica. Poster at the 9th annual INTECOL Meeting, Wetlands in a Complex World, July 2012, Orlando, FL.

Education/Outreach Publications and Workshops

Kaplan, D. Going Dry in the Land of Plenty? Florida's Hydrological History and Looming Water Crisis. ***Invited*** talk at the Friendship Fellowship at Pineda (Unitarian Universalist Church), September 2015, Rockledge, FL.

Kaplan, D. and S. Arden. 2015. Past, Present, and Future: Using Climate Data and Models to Inform Lake Management in Florida? ***Invited*** workshop at the Florida Lake Management Society, 24th Annual Conference & Symposium, June 2015, Naples, FL.

Atahyde, S., J. Dutka-Gianelli, **D. Kaplan**, and S. Bohlman. 2014. Engineered Landscapes: Society, the Environment, and Shifting Values in Brazil and the United States. October 2014, Gainesville, FL.

Kaplan, D. 2013. How Do Watersheds Dictate the Ecological Integrity of Florida Lakes? ***Invited*** workshop at the Florida Lake Management Society, 24th Annual Conference & Symposium: Integrating Lake and Watershed Management, June 2013, Daytona Beach, FL.

Kaplan, D. 2012. "What is the structure of water?" In M. Lamothe, J. Rothman, J. Volvovski (Eds.): *The Where, The Why and The How: 75 Artists Illustrate Wondrous Mysteries of the Universe*. Chronicle Books, San Francisco.

Kaplan, D. 2012. "Why do whales sing?" In M. Lamothe, J. Rothman, J. Volvovski (Eds.): *The Where, The Why and The How: 75 Artists Illustrate Wondrous Mysteries of the Universe*. Chronicle Books, San Francisco.

Vardi, T. and **D. Kaplan**. 2005. Forever Wild: Nature in New York City. Website, brochure, map, and database of New York City natural areas. www.nycgovparks.org/greening/nature-preserves.

Research Reports

Kaplan, D. and E. White*. 2016. Nature Coast Biological Station Project Status Report. September, 2016, Gainesville, FL.

Kaplan, D., P. Sucsy, N. Reaver*, A. Johnson***, E. Carter, J. Stewart, and Y. Zhang. 2016. Hydraulics and Hydrodynamics: Velocity and residence time distributions and transient storage. Annual Report for the SJRWMD-UF Springs Protection Initiative Science/Collaborative Research Initiative on Sustainability and Protection of Springs (SPIS-CRISPS). September, 2016, Gainesville, FL.

Cohen, M., D. McLaughlin, and **D. Kaplan.** 2016. Managing Forests for Increased Regional Water Availability. Year 2 Annual Report to the Florida Department of Agriculture and Consumer Services. March 2016, Gainesville, FL.

Kaplan, D. Predicting the effects of water use, climate change, and sea-level rise on saline and freshwater communities of the Lower Suwannee and Cedar Keys National Wildlife Refuges, FL. Final report the US Department of the Interior, Fish and Wildlife Service. December 2015, Gainesville, FL.

Kaplan, D., P. Sucsy, N. Reaver*, A. Johnson***, E. Carter, J. Stewart, and Y. Zhang. 2015. Hydraulics and Hydrodynamics: Velocity and residence time distributions and transient storage. Annual Report for the SJRWMD-UF Springs Protection Initiative Science/Collaborative Research Initiative on Sustainability and Protection of Springs (SPIS-CRISPS). September, 2015, Gainesville, FL.

Langston A.* and **D. Kaplan**. 2015. Interim Summary of Findings Along Turtle Creek: Long-term Vegetation Trends In Coastal Hydric Hammock. Report to the Florida Department of Environmental Protection. University of Florida, Gainesville.

Atahyde, S., J. Dutka-Gianelli, **D. Kaplan**, and S. Bohlman. 2014. Technical Report: Engineered Landscapes: Society, the Environment, and Shifting Values in Brazil and the United States Post-Symposium Summary and Report. University of Florida, Gainesville.

Langston, A.* and **D. Kaplan**. 2014. Science Plan and Rapid Ecological Assessment for Natural Resource-Based Sea-Level Rose Adaptation Strategy in Yankeetown, FL. University of Florida, Gainesville.

Acharya, S.**, **D. Kaplan**, M. Cohen, and J. Jawitz. 2014. Anisotropic local interaction coupled with hydrologic feedback generate elongated ridge-slough patterning in the Everglades. Systems Status Report to the Army Corps of Engineers. University of Florida, Gainesville.

Watts, D., M. Cohen, **D. Kaplan**, and D. McLaughlin. 2013. Evaporation-Driven Phosphorus Transport from Sloughs to Ridges as a Mechanism for Phosphorus Enrichment on Ridges. Systems Status Report to the Army Corps of Engineers. University of Florida, Gainesville.

Cohen, M., D. Watts, **D. Kaplan**, Y. Jing, J. Heffernan, T. Osborne, M. Clark, and T. Oh. 2012. Mechanisms of Ridge-Slough Maintenance and Degradation across the Greater Everglades. Final report to the Army Corps of Engineers. University of Florida, Gainesville.

Cohen, M., D. Watts, **D. Kaplan**, Y. Jing, J. Heffernan, T. Osborne, M. Clark, and T. Oh. 2011. Mechanisms of Ridge-Slough Maintenance and Degradation across the Greater Everglades. Annual report to the Army Corps of Engineers. University of Florida, Gainesville.

Kaplan, D., R. Paudel, J. Jawitz, and M. Cohen. 2011. Application of the Regional Simulation Model (RSM) to Test the Effects of Landscape Orientation on Flow through the Everglades Ridge-Slough Mosaic. Report to the South Florida Water Management District. University of Florida, Gainesville.

Muñoz-Carpena, R., **D. Kaplan**, and F.J. Gonzalez. 2009. Advanced Data Analysis of Shallow Groundwater Dynamics in the Loxahatchee River Floodplain. Final Project Report to the South Florida Water Management District-Coastal Ecosystems Division. University of Florida, Gainesville.

Jawitz, J., J. Bhadha, M. Brenner, G. Brown, A. Bunch, and **D. Kaplan**. 2009. A Sustainable Approach to Preserve the Choctawhatchee Coastal Dune Lakes of Florida. Final Report to the US Environmental Protection Agency. University of Florida, Gainesville.

Muñoz-Carpena, R., **D. Kaplan** and F.J. Gonzalez. 2008. Groundwater Data Processing and Analysis for the Loxahatchee River Basin. Final Project Report to the South Florida Water Management District-Coastal Ecosystems Division. University of Florida, Gainesville.

FUNDED RESEARCH

1. Agricultural Water Security for the Floridan Aquifer: An Integrated Assessment of Economic and Environmental Impacts (Co-Project Director), **$4,918,922**, USDA Agriculture and Food Research Initiative - Water for Agriculture Challenge Area.
2. Rapid, low-cost nanobiosensors for developing risk assessment decision analytics in rural Colombia (Co-PI), **$4,800**, University of Florida Center for Latin American Studies International Working Group.
3. CNH-RCN: Amazon Dams Network: advancing integrative research and adaptive management of social-ecological systems transformed by hydroelectric dams (Senior Personnel), $498,997, National Science Foundation.
4. Agricultural Water Security Through Sustainable Use of the Floridan Aquifer: An Integrated Assessment of Economic and Environmental Impacts (PI), **$80**,**000** USGS.
5. Long-term trends in floodplain forest tree growth across salinity gradients in along Florida's Big Bend coastline (PI), **$64,625**, USGS.
6. National Wetlands Condition Assessment (PI), **$414,225**, US Environmental Protection Agency.
7. Supplemental National Wetlands Condition Assessment Contract, (PI), **$111,788**, FL Department of Environmental Protection.
8. Hydrologic transformation in the Amazon basin: reconciling economy, society, and the environment in the world's largest watershed (PI), **$1,082,402**, UF Water Institute.
9. Modeling the connections between hydrology, water quality, and ecosystem health to support coastal preservation efforts across the Northern Gulf Coast (PI), **$300,000**, National Park Service/United States Geological Survey Water Quality Partnership.
10. Collaborative Research Initiative on Sustainability and Protection of Springs (Co-PI), **$3,000,000**, St. Johns River Water Management District.
11. Quantifying a novel ecosystem service of oyster reefs: estuarine freshwater entrainment (Co-PI), **$10,000**, Florida SeaGrant

12. Managing forests for increased regional water availability (Co-PI), $**637,725**, Suwanee and St. Johns River Water Management Districts/Florida Division of Agricultural and Consumer Services/Florida Department of Environmental Protection.
13. Establishing a Natural Resources-Based "Adaptation Action Area" for the town of Yankeetown, FL (PI), **$25,000**, Florida Department of Economic Opportunity.
14. Predicting the effects of water use, climate change, and sea-level rise on saline and freshwater communities of the Lower Suwannee and Cedar Keys National Wildlife Refuges, FL (PI), **$39,314** US Fish and Wildlife Service.
15. Establishing ecological observatory networks in Southeastern barrier island forests (Co-PI), **$21,500**, USDA McIntire Stennis Program.
16. Quantifying water yield from upland habitat restoration and management: benefits to wetlands, watersheds, and aquifers (Co-PI), **$10,470**, USDA, McIntire Stennis Program.

TEACHING AND MENTORSHIP ACTIVITIES

- Visiting Scholar Host:
  - Victoria Isaac, Federal University of Pará, Brazil (2016-2107)
  - Ji Wenyuan and Ma Xiaohui, Chinese State Forestry Administration (2016-2017)
  - Fangli Su, Associate Professor and Academic Leader, Department of Soil and Water Conservation, Shenyang Agricultural University, China (2014-2015)
- Thesis Advisor/Postdoctoral Sponsor:
  - Total number of postdoctoral scholars mentored (2): *Subodh Acharya* and *Patricia Spellman* (current)
  - Total number of graduate students mentored (11): *Darina Palacio* (PhD, 2013); *Kelsie Timpe* (MS, 2016); *Ali Al-Quraishi, Amy Langston*, *Kevin Henson*, *Katie Glodzik*, *Trey Crouch*, *Elliott White*, *Alexa Mainella, Sagarika Rath*, and *Nathan Reaver* (PhD, current).
- Undergraduate Research Advisor:
  - Total number of undergraduate students mentored since 2012: 8
  - *Joshua Benjamin*, UF University Scholar: Novel sensors for ecohydrological measurement (2015-present); *Samantha Schreiner*, 4/1 Program: Wetland treatment system design for a rural Costa Rican Community (2015-present); *Bruna Barbezani*, Brazilian Scientific Mobility Program: Amazon basin hydrological data analysis and modeling (summer 2015); *Alexis Johnson*, UF University Scholar: Hydraulics and nutrient uptake in flowing waters (2013-2015); *Samantha Kufrin*: Groundwater use and wetland ecological integrity (2012-2013); *Alicia Mata*, UF Honors Thesis: Watershed hydrology and erosion potential in Panama (2013-2014); *Julianne Chechanover*: Erosion control materials (2014-2015); *Emily Labandera*: Amazon hydrology (2014-2015)
- Additional student mentorship:
  - Society of Wetland Scientists Annual Meeting undergraduate student mentor (2015)
  - Brazilian Science Without Borders Program Fellow Mentor (2014-present)
- New course development (University of Florida):
  - Wetland Restoration and Design (2016)
  - Ecological Engineering (2017)
  - UnCommon Reads: A Prosperous Way Down (2015)
  - Wetland Restoration and Management (2013)
- Graduate, University of Florida College of Agricultural and Life Sciences Teacher's College, 2011
- Teaching Assistant and Lab Instructor, Land and Water Resources Engineering, 2007
- Instructor, Introduction to Engineering, 2006 – 2010

- Mentored undergraduate students from Brazil, Guatemala, and Costa Rica during four-month internships at the University of Florida, 2007-2010
- Led hands-on worker training programs and volunteer workshops on bioengineering techniques, salt marsh ecology and restoration, water quality monitoring, and invasive plant identification and management for the New York City Department of Parks & Recreation, 2001-2005

HONORS AND AWARDS

- University of Florida Water Institute Early Career Faculty Fellow (2017-2020)
- University of Florida Term Professorship (2017-2020)
- UF International Center and College of Engineering, International Educator of the Year (2016)
- Center for Latin American Studies Faculty Travel Award (2016)
- 2010 Best Dissertation Award, UF Department of Agricultural and Biological Engineering (2010)
- Graduate Student Award of Merit, Gamma Sigma Delta (Agricultural Honor Society) (2010)
- Student Speaker Award, FL Section, Amer. Soc. of Agricultural and Biological Engineers (2009)
- McNair Bostick Scholarship for Research in Agricultural and Natural Resource Systems (2009)
- University of Florida Alumni Fellowship (2005 – 2009)

SERVICE AND PROFESSIONAL AFFILIATIONS

- External Reviewer (~8 per year): Frontiers in Ecology and the Environment; Science of the Total Environment; Environmental Science and Technology; Journal of Hydrology; Ecological Engineering; Journal of Environmental Management; Journal of Sustainable Watershed Science and Management; Stochastic Environmental Research and Risk Assessment; Journal of Environmental Quality; Ecological Applications; Journal of Contaminant Hydrology; Journal of the American Water Resources Association; Environmental Research Letters; Wetlands, Institute of Electrical and Electronics Engineers (IEEE) Sensors Journal, Sustainability, African Journal of Environmental Science and Technology, Urban Forestry and Urban Greening, Water Resources Research, PLOS ONE, River Research and Applications, Ecohydrology, Restoration Ecology
- Panel Reviewer: Pacific Islands Regional Climate Assessment (PIRCA) (2012); National Science Foundation, Division of Earth Sciences and Division of Environmental Biology (2013-2016); National Institutes for Water Research National Competitive Grants Program (2014); Technology Foundation STW (Dutch funding agency for academic research in the field of applied technology) (2015); USDA ARS Southeast Watershed Research Unit 211 Plan (2016)
- Coordinator, 2014 Withlacoochee Gulf Preserve BioBlitz (rapid ecological inventory and public outreach event): organized over 100 citizen and professional scientist participants in the documentation of over 200 new species at the WGP
- Session convener, "Damming Tropical Rivers: Quantifying hydrological, ecological, and socioeconomic impacts at local to global scales" 2016 AGU Meeting, San Francisco, CA
- Session and panel organizer, Society and Environment in the Amazon (1-4), American Association of Geographers Annual Meeting, March 2016, San Francisco, CA
- Workshop organizer and presenter (Invited), Florida Lake Management Society, 26th Annual Conference & Symposium, June 2015, Naples, FL
- Symposium organizer and panel moderator, "Engineered Landscapes: Society, the Environment, and Shifting Values in Brazil and the U.S.", UF Amazon Dams Network, October 2014, Gainesville, FL
- Workshop organizer and presenter (Invited), Florida Lake Management Society, 24th Annual Conference & Symposium: Integrating Lake and Watershed Management, June 2013, Daytona Beach, FL.

- Workshop Facilitator, “Tools and Strategies for Conservation and Development in the Amazon: Lessons Learned and Future Pathways”, 3-5 October 2017, University of Florida, Gainesville
- Founding member and vice-chair (2014-present), Environmental and Water Resource Institute, Gainesville Chapter
- University Service: Panel Judge, Student Artist in Residence Program (2012); Panelist, Governmental Career Roundtable (2013); Co-Advisor EPA Rainworks Challenge (2013 and 2014 National Award-Winning Team); UF Water Institute Faculty Advisory Committee (2015-present), UF Water Institute Hydrologic Sciences Academic Cluster Academic Committee, Hydrologic Biology representative (2014-present) and chair (2015-present), Florida Climate Institute Faculty Advisory Committee (2015-present)
- Departmental Service: Graduate Mentoring, External Communications, and Awards Committees (2012-2015); Curriculum Committee (2015-present); ESSIE-Wide Faculty Search Committee (2016-present); Coastal Ecosystem Dynamics Search Committee (2016-present); Graduation Marshall (2012-2015)
- Member, American Society of Agricultural and Biological Engineers (ASABE) and co-editor, special collection from 21st Century Watershed Technology Conference (Costa Rica) *in*: Trans. ASABE; Member: American Geophysical Union, American Water Resources Association, North American Colleges and Teachers of Agriculture, Society for Ecological Restoration, Society of Wetland Scientists
- Board Member and Ecology Team Chair, Bronx River Alliance (2003-2005)