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EDUCATION

B.S. (with Distinction) Environmental Engineering	1995 Swarthmore College, Swarthmore, PA
M.E. Environmental Engineering Sciences	1999 University of Florida, Gainesville, FL
Ph.D. Environmental Engineering Sciences	2003 University of Florida, Gainesville, FL

ACADEMIC APPOINTMENTS

Carl S. Swisher Eminent Scholar and Director (Water Institute, UF)	*October 2023 - present*
Professor (Forest, Fisheries and Geomatics Sciences, UF)	*July 2016 - present*
Associate Professor (Forest Resources & Conservation, UF)	*July 2011 – June 2016*
Assistant Professor (Forest Resources & Conservation, UF)	*March 2006 – June 2011*
Assistant Research Scientist (Soil and Water Science, UF)	*January 2005 – March 2006*
Lecturer (School of Natural Resources and Environment, UF)	*January 2004 – March 2006*
Post-Doctoral Researcher (Soil and Water Science, UF)	*August 2003 – January 2005*

PROFESSIONAL SOCIETIES (CURRENT)

- American Geophysical Union
- Society for Freshwater Science
- American Society for Limnology and Oceanography
- Society of American Foresters

HONORS AND AWARDS

- Stephen Spurr Award from the Society of American Foresters – 2023
- University of Florida Term Professor – 2018 to 2021
- Research Foundation Professor, University of Florida – 2014 to 2016
- High Impact Research Award, UF/IFAS – 2014
- Faculty Fellow, UF Water Institute – 2013
- Richard L. Jones Outstanding New Faculty Research Award – 2010

SERVICE

- AGU Water Quality Technical Committee Chair (2019-2022)
- AGU Water Quality Technical Committee Member (2016-present)
- CUAHSI Board of Directors Member (2016-2019)
- National Nutrient Sensor Challenge Judge (2016 – 2017)
- CUAHSI Short Courses on *In Situ* Water Quality Sensors Organizer/Lead Instructor (2013, 2017).
- UF Water Institute Faculty Advisory Committee Chair (2016-2017)
- UF Water institute Faculty Advisory Committee Member (2012-2017, 2020-present)
- Florida Forest Service Technical Advisory Committee Member (2012-present)
- Springs Coast Technical Advisory Committee Member (2019-present)

SCIENTIFIC IMPACT

- 6729 citations (Google Scholar as of April 9, 2023)
- H-index = 42, M-index (H-index per year) = 2.0, i10 (papers cited at least 10 times) = 98

MENTORING

- Advised 14 post-docs (3 current), 14 PhD students (5 current), 15 MS (thesis) students, 4 undergraduate (thesis) students
    - 8 mentees are university faculty (Duke, Virginia Tech, Kentucky State, University of Florida (2), Purdue, Stetson, Handong University in S. Korea)
    - 5 mentees are agency scientists (USDA, DOE, EPA, NEON, Water Management Districts)
    - 5 former mentees are completing PhDs or post-doctoral research (University of Virginia, INRAE in France, Michigan State, Florida International University, Virginia Tech)
    - 13 former mentees are in private industry and consulting
- SFFGS Faculty T&P Mentoring Committee Chair (2018-present)

FUNDING SUMMARY

- $22 million in cumulative total funding since 2005 ($9.1 million to the Cohen lab)
- 50% from Federal sources (National Science Foundation, Dept. of Defense, National Park Service, Dept. of Energy, Environmental Protection Agency, Natural Resources Conservation Service)
- 35% from State sources (Water Management Districts, Florida Dept. of Environmental Protection, Florida Dept. of Agriculture & Consumer Services, Fish and Wildlife Conservation Commission)
- 15% from private sources (Three Rivers Trust, National Council for Air and Stream Improvement, Rayonier Corporation, Gainesville Regional Utilities)

SCIENTIFIC ENGAGEMENT

- *Conference Session Organizer*
    - American Society for Limnology and Oceanography 2018
    - UF Water Institute Symposium 2016, 2018, 2020, 2022, 2024
    - American Geophysical Union 2010, 2012, 2014, 2016-present
    - Society of Freshwater Science Meeting 2009 (as NABS) 2015, 2017, 2018, 2019
- *Research presentations*
    - Invited: 40
    - Contributed: 54
    - Student and post-doctoral researchers: 137 (95 posters, 42 oral)
- *Nominating Colleagues for Awards*
    - Society of Wetland Scientists
    - American Geophysical Union
    - Ecological Society of America
- *Peer review*
    - Manuscript reviews (n = 244) for Water Resources Research, Geophysical Research Letters, Earth's Future, JGR-Biogeosciences, Ecology, Science, Nature Geoscience, Ecology Letters, Proceedings of the National Academy of Sciences, Ecosystems, Ecological Indicators, Wetlands, Freshwater Science, Journal of the American Water Resources Association, Environmental Science and Technology, Limnology and Oceanography, Limnology and Oceanography Letters, Environmental Research Letters, Biogeosciences, Hydrologic and Earth System Science, Global Change Biology, Nature Communications, Geoderma, Science for the Total Environment, Ecological Engineering.
    - Proposal Reviews (n = 13 panels, 19 as ad-hoc reviewer) for National Science Foundation (Ecosystems, Hydrology, Macrosystems Biology, EpSCOR, Dissertation Enhancement), Department of Energy, USDA – NIFA, US Army Corps of Engineers.

PUBLICATIONS (N = 109 IN PEER-REVIEWED JOURNALS)

109. Winter, C., J.W. Jawitz, P. Ebeling, M.J. Cohen, and A. Musolff. *In press*. Divergence between long-term and event-scale nitrate export patterns. Geophysical Research Letters.
108. Shin, Y., J.W. Jawitz, and M.J. Cohen. *In press*. Energy inputs imprint seasonality and fractal structure on river metabolic regimes. Limnology and Oceanography Letters.
107. Klammler, H., J.W. Jawitz, and M.J. Cohen. *In press*. A Simple Model of Flow Reversals in Florida's Karst Springs. Water Resources Research.
106. Lee, E., Sadeghi, S.M.M., Deljouei, A. and Cohen, M.J., 2023. A multi-decadal national scale assessment of reference evapotranspiration methods in continental and temperate climate zones of South Korea. Journal of Hydrology, 625, p.130021.
105. Lee, E., Epstein, J.M. and Cohen, M.J., 2023. Patterns of Wetland Hydrologic Connectivity Across Coastal-Plain Wetlandscapes. Water Resources Research, 59(8), p.e2023WR034553.
104. Julian, P., Schafer, T., Cohen, M.J., Jones, P. and Osborne, T.Z., 2023. Changes in the spatial distribution of total phosphorus in sediment and water column of a shallow subtropical lake. Lake and Reservoir Management, 39(3), pp.213-230.
103. Blaszczak, J.R., Koenig, L.E., Mejia, F.H., Gómez-Gener, L., Dutton, C.L., Carter, A.M., Grimm, N.B., Harvey, J.W., Helton, A.M. and Cohen, M.J., 2022. Extent, patterns, and drivers of hypoxia in the world's streams and rivers. Limnology and Oceanography Letters, 8(3).
102. Dong, X., Martin, J.B., Cohen, M.J. and Tu, T., 2023. Bedrock mediates responses of ecosystem productivity to climate variability. Communications Earth and Environment, 4(1), p.114.
101. Diamond, J.S., Pinay, G., Bernal, S., Cohen, M.J., Lewis, D., Lupon, A., Zarnetske, J. and Moatar, F., 2023. Light and hydrologic connectivity drive dissolved oxygen synchrony in stream networks. Limnology and Oceanography, 68(2), pp.322-335.
100. Kirk, L. and Cohen, M.J., 2023. River Corridor Sources Dominate CO 2 Emissions From a Lowland River Network. Journal of Geophysical Research: Biogeosciences, 128(1).
99. Bernal, S., Cohen, M.J., Ledesma, J.L., Kirk, L., Martí, E. and Lupon, A., 2022. Stream metabolism sources a large fraction of carbon dioxide to the atmosphere in two hydrologically contrasting headwater streams. Limnology and Oceanography, 67(12), pp.2621-2634.
98. Acharya, S., Kaplan, D.A., McLaughlin, D.L. and Cohen, M.J., 2022. In-Situ Quantification and Prediction of Water Yield From Southern US Pine Forests. Water Resources Research, 58(5), 2021WR031020. https://doi.org/10.1029/2021WR031020
97. Bernhardt, E.S., P. Savoy, M.J. Vlah, A.P. Appling, L.E. Koenig, R.O. Hall, M. Arroita, J.R. Blaszczak, A.M. Carter, M.J. Cohen, J.W. Harvey, J.B. Heffernan, A.M. Helton, J.D. Hosen, L. Kirk, W.H. McDowell, E.H. Stanley, C.B. Yakulic and N.B. Grimm. 2022. Light and flow regimes regulate the metabolism of rivers. Proceedings of the National Academy of Sciences, 119(8). https://doi.org/10.1073/pnas.2121976119
96. Lane, C.R., I.F. Creed, H.E. Golden, S.G. Leibowitz, D.M. Mushet, M.C. Rains, Q. Wu, E. D'Amico, L.C. Alexander, G.A. Ali, N.B. Basu, M.G. Bennett, J.R. Christensen, M.J. Cohen, T.P. Covino, B. DeVries, R.A. Hill, K. Jencso, M.W. Lang, D.L. McLaughlin, D.O. Rosenberry, J. Rover and M.K. Vanderhoof. 2022. Vulnerable waters are essential to watershed resilience. Ecosystems https://doi.org/10.1007/s10021-021-00737-2
95. Diamond, J.S., S. Bernal, A Boukra, M.J. Cohen, D. Lewis, M. Masson, F. Moatar and G. Pinay. 2021. Stream network variation in dissolved oxygen: Metabolism proxies and biogeochemical controls. Ecological Indicators 131:108233 https://doi.org/10.1016/j.ecolind.2021.108233
94. Henshaw, K., A. Bacon, M.J. Cohen, J.G. Vogel, and J.D. Judy. 2021. Subsurface phosphorus fluxes in a well-drained forest soil are small and dominated by paticulates. Soil Science Society of America Journal 85:1299-1310 https://doi.org/10.1002/saj2.20258
93. Hosen, J.D., G.H. Allen, G. Amatuli, S. Breitmeyer, M.J. Cohen, B.C. Crump, Y. Lu, J.P. Payet, B.A. Poulin, A. Stubbins, B. Yoon and P.A. Raymond. 2021. River network travel time is correlated with dissolved organic matter composition in rivers of the contiguous United States. Hydrological Processes 35:e14124 https://doi.org/10.1002/hyp.14124

92. Diamond, J.S. J.M. Epstein, M.J. Cohen, D.L. McLaughlin, Y.H. Hsueh, R.F. Keim, and J.A. Duberstein. 2021. A little relief: Ecological functions and autogenesis of wetland microtopography. Wiley Interdisciplinary Reviews: Water 8: e1493 https://doi.org/10.1002/wat2.1493
91. Gomez-Gener, L., G. Rocher-Ros, T. Battin, M.J. Cohen, H. Dalmagro, K.J. Dinsmore, T. Drake, C. Duvert, A. Prast, A. Horgby, M. Johnson, L. Kirk, F. Machado-Silva, N. Marzolf, M.J. McDowell, W.H. McDowell, H. Miettinen, A.K. Ojala, H. Peter, J. Pumpanen, D. Riveros-Iregui, I. Santos, J. Six, E.H. Stanley, M.B. Wallin, S. White and R.A. Sponseller. 2021. Enhanced nocturnal emissions of carbon dioxide amplify the role of streams in the global carbon cycle. Nature Geoscience 14: 289-294
90. Diamond, J.S., F. Moatar, M.J. Cohen, A. Poirel, C. Martinet, A. Maire, and G. Pinay. 2021. Metabolic regime shifts and ecosystem state changes are decoupled in a large river. Limnology and Oceanography https://doi.org/10.1002/lno.11789
89. Savoy, P., E. Bernhardt, L. Kirk, M.J. Cohen, and J.B. Heffernan. 2021. A seasonally dynamic model of light at the stream surface. Freshwater Science 40: 286-301 https://doi.org/10.1086/714270
88. Henshaw, K., Bacon, A., Cohen, M., Vogel, J. and Judy, J.D., 2021. Subsurface phosphorus fluxes in a well-drained forest soil are small and dominated by particulates. Soil Science Society of America Journal, 85(4), pp.1299-1310.
87. Acharya, S.P, D.L. McLaughlin, D.A. Kaplan, and M.J. Cohen. 2020. A proposed method for estimating interception from near-surface soil moisture response. Hydrology and Earth System Science 24:1859-1870 https://doi.org/10.5194/hess-24-1859-2020
86. Bergstrom, A., M.N. Gooseff, J.G. Singley, M.J. Cohen, and K.A. Welch. 2020. Nutrient uptake in a supraglacial stream network of an Antarctic glacier. Journal of Geophysical Research: Biogeosciences 125(9):e2020JG005679 https://doi.org/10.1029/2020JG005679
85. Hensley, R.T., P.H. Decker, C. Flinders, D.L. McLaughlin, E. Schilling, and M.J. Cohen. Fertilization has negligible effects on nutrient export and stream biota in two North Florida forested watersheds. Forest Ecology and Management 465, 118096 https://doi.org/10.1016/j.foreco.2020.118096
84. Hensley, R.T., M.J. Spangler, L.F. DeVito, P.H. Decker. M.J. Cohen, and M.N. Gooseff. 2020. Evaluating spatiotemporal variation in water chemistry of the upper Colorado River using longitudinal profiling. Hydrological Processes 34:1782- 1793. https://doi.org/10.1002/hyp.13690
83. Kirk, L., R.T. Hensley, P. Savoy, J.B. Heffernan and M.J. Cohen. 2020. Estimating benthic light regimes improve predictions of primary production and constrains light use efficiency in streams and rivers. Ecosystems https://doi.org/10.1007/s10021-020-00552-1
82. Klammler, H. C.J. Quintero, J.W. Jawitz, D.L. McLaughlin and M.J. Cohen. 2020. Local storage dynamics of individual wetlands predict wetlandscape discharge. Water Resources Research 56 (11):e2020WR027581 https://doi.org/10.1029/2020WR027581
81. Ward, N.D., T.S. Bianchi, J.B. Martin, C.J. Quintero, H.O. Sawakuchi, and M.J. Cohen. 2020. Pathways for methane emissions and oxidation that influence the net carbon balance of a sub-tropical cypress swamp. Frontiers in Earth Science 8,573 https://doi.org/10.3389/feart.2020.573357
80. Yuan, J., and M.J. Cohen. 2020. Remote detection of ecosystem degradation in the Everglades ridge-slough landscape. Remote Sensing of Environment. 247, 111917 https://doi.org/10.1016/j.rse.2020.111917
79. McBride, J.A. and M.J. Cohen. 2020. Controls on productivity of submerged aquatic vegetation in 2 spring-fed rivers. Freshwater Science 39:1-17
78. Hensley, R.T. and M.J. Cohen. 2020. Nitrate depletion dynamics and primary production in riverine benthic chambers. Freshwater Science 39:169-182.
77. Zhang, X., T.S. Bianchi, M.J. Cohen, J.B Martin, C.J. Quintero, A.L. Brown, A.M. Ares, J.B. Heffernan, N. Ward, T.Z. Osborne, M.R. Shields and W.F. Kenney. 2019. Initiation and development of wetlands in southern Florida karst landscape associated with accumulation of organic matter and vegetation evolution. Journal of Geophysical Research: Biogeosciences 124:1604-1617
76. Henson, W.R., M.J. Cohen and W.D. Graham. 2019. Spatially distributed denitrification in a karst springshed. Hydrological Processes 33 (8), 1191-1203
75. McLaughlin, D.L., J.S. Diamond, C. Quintero, J.B. Heffernan, M.J. Cohen. 2019. Wetland connectivity thresholds and flow dynamics from stage measurements. Water Resources Research 55:

6018-6032

74. Quintero, C.J. and M.J. Cohen. 2019. Scale-Dependent Patterning of Wetland Depressions in a Low-Relief Karst Landscape. Journal of Geophysical Research: Earth Surface 124 (8), 2101-2117
73. Buck, D.G., P.C. Esselman, S. Jiang, J.D. Wainwright, M. Brenner and M.J. Cohen. 2019. Seasonal fluxes of Dissolved nutrients in catchments dominated by swidden agriculture in the Maya forest of Belize, Central America. Water 11:664-675
72. Hensley, R.T., L. Kirk, M. Spangler, M.N. Gooseff and M.J. Cohen. 2019. Flow extremes as spatiotemporal control points on river solute fluxes and metabolism. Journal of Geophysical Research: Biogeosciences 124
71. Hensley, R.T., M.J. Cohen and J.W. Jawitz. 2018. Channel filtering generations multi-fractal solute signals. Geophysical Research Letters 45:11,722-11,731
70. Thorslund, J., M.J. Cohen, J.W. Jawitz, G. Destouni, I.F. Creed, M.C. Rains, P. Badiou and J. Jarsjo. 2018. Solute evidence for hydrological connectivity of geographically isolated wetlands. Land Degradation and Development 29:3954-3962
69. Dong, X., M.J Cohen, J.B. Martin, D.L. McLaughlin, A.B. Murray, N.D. Ward, M.K. Flint, and J.B. Heffernan. 2018. Ecohydrologic processes and soil thickness feedbacks control limestone-weathering rates in a karst landscape. Chemical Geology https://doi.org/10.1016/j.chemgeo.2018.05.021
68. Chamberlin, C.A., T.S Bianchi, A.L. Brown, M.J. Cohen, X. Dong, M.K. Flint, J.B Martin, D.L McLaughlin, A.B. Murray, A. Pain, C.J. Quintero*, N.D. Ward, X. Zhang and J.B. Heffernan. 2018. Mass balance implies Holocene development of a low-relief karst patterned landscape. Chemical Geology https://doi.org/10.1016/j.chemgeo.2018.05.029
67. Diamond, J.S.*, and M.J. Cohen. 2018. Complex patterns of catchment solute-discharge relationships for coastal plain rivers. Hydrological Processes 32:388-401
66. Weinkam, G.B., M.T. Brown, D.A. Kaplan, M.W. Clark and M.J. Cohen. 2018. Fate and transport potential of phosphorus in sandy soils under long-term municipal wastewater irrigation. Florida Water Resources Journal 69:22-30
65. Reijo, C.J., Hensley, R.T. and Cohen, M.J., 2018. Isolating stream metabolism and nitrate processing at point-scales, and controls on heterogeneity. Freshwater Science, 37:238-250.
64. Bernhardt, E.S., J.B. Heffernan, N.B Grimm, E.H. Stanley, J.W. Harvey, M. Arroita, A.P. Appling, M.J. Cohen, W.H. McDowell, R.O. Hall, J.S. Read, B.J. Roberts, E.G. Stets and C.B. Yakulic. 2018. The metabolic regimes of flowing waters. Limnology and Oceanography 63:S99-S118
63. Creed, I.F., C.R. Lane, J.N. Serran, L.C. Alexander, N.B. Basu, A.J.K. Calhoun, J.R. Christensen, M.J. Cohen, C. Craft, E. D'Amico, E. DeKeyser, L. Fowler, H.E. Golden, J.W. Jawitz, P. Kalla, L.K. Kirkman, M. Lang, S.G. Leibowitz, D.B. lewis, J. Marton, D.L. McLaughlin, H. Raanan-Kiperwas, M.C. Rains, K.C. Rains, and L. Smith. 2017. Enhancing protection for vulnerable waters. Nature Geoscience 10:809-815
62. Thorslund, J., J. Jarsjo, F. Jaramillo, J.W. Jawitz, S. Manzoni, N. Basu, S.R. Chealov, M.J. Cohen, I.F. Creed, R. Goldenberg, A. Hylin, Z. Kalantari, A.D. Koussis, S.W. Lyon, K. Mazi, J. Mard, K. Persson, J. Pietro, C. Prieto, A. Quin, K. van Meter and G. Destouni. 2017. Wetlands are large-scale nature-based solutions: Status and challenges for research, engineering and management. Ecological Engineering 108:489-497
61. Acharya, S.†, D.A. Kaplan, J.W. Jawitz and M.J. Cohen. 2017. Doing ecohydrology backward: Inferring wetland flow and hydroperiod from landscape patterns. Water Resources Research 53:5742-5755
60. Hensley, R.T.†, and M.J. Cohen. 2017. Flow reversals as a driver of ecosystem transition in Florida's springs. Freshwater Science 36:14-25
59. Hensley, R.T. †, D.L. McLaughlin, M.J. Cohen and P.H. Decker*. 2017. Stream phosphorus dynamics of minimally impacted coastal plain watersheds. Hydrological Processes 31:1636-1649
58. Yuan, J.* and M.J. Cohen. 2017. Spatial metrics for detecting ecosystem degradation in the ridge slough patterned landscape. Ecological Indicators 74:427-440
57. Rode, M., A.J. Wade, M.J. Cohen, R.T. Hensley†, M.J. Bowes, J.W. Kirchner, G.B. Arhonditsis, P. Jordan, B. Kronvang, S.J. Halliday, R.A. Skeffington, J.C. Rozemeijer, A.H. Aubert and K. Rinke.

2016. Sensors in the Stream: The High Frequency Wave of the Present. Environmental Science and Technology 50:10297-10307

56. Vogel, J.W.*, T.Z. Osborne, R.T. James and M.J. Cohen. 2016. Spectral prediction of sediment chemistry in Lake Okeechobee, Florida. Environmental Monitoring and Assessment 188:594-606
55. Casey, S.*, M.J. Cohen, D.A. Kaplan, S. Acharya†, and J.W. Jawitz. 2016. Hydrologic controls on aperiodic spatial organization of the ridge-slough patterned landscape. Hydrologic and Earth System Science 20:4457-4469
54. Hensley, R.T.†, and M.J. Cohen. 2016. On the emergence of diel signals in flowing waters. Water Resources Research 52: 10.1002/2015WR017895
53. Cohen, M.J., I.F. Creed, L.A. Alexander, N.B. Basu, A.K. Calhoun, C.B. Craft, E. D'Amico, E. DeKeyser, L. Fowler, H.E. Golden, J.W. Jawitz, P. Kalla, L.K. Kirkman, C.R. Lane, M. Lang, S.G. Leibowitz, D.B. Lewis, J.M. Marton, D.L. McLaughlin, D.M. Mushet, H. Raanan-Kiperwas, M.C. Rains, L. Smith and S. Walls. 2016. Conserving the landscape continuum: Do geographically isolated wetlands impact landscape functions? Proceedings of the National Academy of Sciences 113:1978-1986
52. Rains, M.C., S.G. Leibowitz, M.J. Cohen, I.F. Creed, H.E. Golden, J.W. Jawitz, P. Kalla, C.R. Lane, M.W. Lang and D.L. McLaughlin. 2015. Geographically isolated wetlands are part of the hydrological landscape. Hydrological Processes 30:153-160 DOI: 10.1002/hyp.10610
51. Yuan, J.*, M.J. Cohen, D.A. Kaplan, S. Acharya†, L.G. Larsen and M.K. Nungesser. 2016. Linking metrics of landscape pattern to hydrological process in a lotic wetland. Landscape Ecology 30:1893-1912
50. Acharya, S.†, D.A. Kaplan, S. Casey*, M.J. Cohen and J.W. Jawitz. 2015. Coupled local facilitation and global hydrologic inhibition drive landscape geometry in a patterned peatland. Hydrologic and Earth System Science 19:2133-2144
49. Kurz, M.J*., V. de Montety, J.B. Martin, M.J. Cohen and R.T. Hensley*. 2015. Solute fluxes from the sediments of a spring-fed river: Implications for element budgets and river ecosystems. Freshwater Science 34:206-221
48. Mushet, D.M., A.J. Calhoun, L.C. Alexander, M.J. Cohen, E.S. DeKeyser, L. Fowler, C.R. Lane, M.W. Lang, M.C. Rains, and S.C. Walls. 2015. Geographically Isolated Wetlands: Rethinking a Misnomer. Wetlands doi: 10.1007/s13157-015-0631-9
47. Hensley, R.T.*, M.J. Cohen, and L.V. Korhnak. 2015. Hydraulic effect on nitrogen removal in a tidal spring-fed river. Water Resources Research 51:1443-1456
46. Marton, J.M., I.F. Creed, D.B. Lewis, C.R. Lane, N.B. Basu, M.J. Cohen and C.B. Craft. 2015. Geographically isolated wetlands are important biogeochemical reactors in the landscape. BioScience doi: 10.1093/biosci/biv009
45. Watts, A.C., D.L. Watts*, M.J. Cohen, J.B. Heffernan, D.L. McLaughlin†, J.B. Martin, D.A. Kaplan, T.Z. Osborne and L. Kobziar. 2014. Evidence of biogeomorphic patterning in a low-relief karst landscape. Earth Surface Processes and Landforms 39:2027-2037
44. Nifong, R.L.*, M.J. Cohen and W.P. Cropper. 2014. Homeostasis and nutrient limitation of benthic autotrophs in natural chemostats. Limnology and Oceanography 59:2101-2111
43. Liebowitz, D.M.*, M.J. Cohen, J.B. Heffernan, L.V. Korhnak and T.K. Frazer. 2014. Environmentally-mediated consumer control of algal proliferation in Florida springs. Freshwater Biology 59:2009-2023
42. McLaughlin, D.L. †, D.A. Kaplan and M.J. Cohen. 2014. A significant nexus: Geographically isolated wetland influence landscape hydrology. Water Resources Research 50:7153-7166
41. McLaughlin, D.L. †, M.L.C. Mazur, D.A. Kaplan and M.J. Cohen. 2014. Estimating effective specific yield in inundated conditions: a comment on a recent application. Ecohydrology 7:1245-1247
40. Hensley, R.T.*, M.J. Cohen, and L.V. Korhnak. 2014. Inferring nitrogen removal in large rivers from high resolution longitudinal profiling. Limnology and Oceanography 59:1152-1170
39. King, S.A.*, J.B. Heffernan and M.J. Cohen. 2014. Nutrient flux, uptake and autotrophic limitation in streams and rivers. Freshwater Science 33:85-98
38. McLaughlin, D.L. †, and M.J. Cohen. 2014. Ecosystem specific yield for estimating

evapotranspiration and groundwater exchange from diel surface water variation. Hydrological Processes 28:1495-1506
37. Cohen, M. J., Kurz, M. J.*, Heffernan, J. B., Martin, J. B., Douglass*, R. L., Foster, C. R., and Thomas, R. G. (2013). Diel phosphorus variation and the stoichiometry of ecosystem metabolism in a large spring-fed river. Ecological Monographs 83, 155-176.
36. Deimeke, E.*, Cohen, M. J., and Reiss, K. C. (2013). Temporal stability of vegetation indicators of wetland condition. Ecological Indicators 34, 69-75.
35. Kurz, M. J.*, de Montety, V., Martin, J. B., Cohen, M. J., and Foster, C. R. (2013). Controls on diel metal cycles in a biologically productive carbonate-dominated river. Chemical Geology 358, 61-74.
34. McLaughlin, D. L. †, and Cohen, M. J. (2013). Realizing ecosystem services: Wetland hydrologic function along a gradient of ecological condition. Ecological Applications 23, 1619-1631.
33. McLaughlin, D.L. †, D.R. Kaplan† and M.J. Cohen. 2013. Managing forests for increased regional water yield. Journal of the American Water Resources Association 49:953-965
32. Heffernan, J.B., D.L. Watts*, and M.J. Cohen. 2013. Discharge Competence and Pattern Formation in Peatlands: a meta-ecosystem model of the Everglades Ridge-Slough landscape. PLoS1 8(5): e64174. doi:10.1371/journal.pone.0064174
31. Cohen, M.J., J.B. Heffernan, A. Albertin† and J.B. Martin. 2012. Inference of Riverine Nitrogen Processing from Longitudinal and Diel Variation in Dual Nitrate Isotopes. Journal of Geophysical Research – Biogeosciences 117(G1), G01021
30. Hensley, R.T.*, and M.J. Cohen. 2012. Controls on Solute Transport in Large Spring Fed Rivers. Limnology and Oceanography 57:912
29. Kaplan, D.A.†, R. Paudel, M.J. Cohen and J.W. Jawitz. 2012. Orientation Matters: Patch Anisotropy Controls Discharge Competence and Hydroperiod in a Patterned Peatland. Geophysical Research Letters 39 (17), L17401
28. McLaughlin, D.L. †, and M.J. Cohen. 2012. Ecosystem specific yield for estimating evapotranspiration and groundwater exchange from diel surface water variation. Hydrological Processes doi:10.1002/hyp.9672
27. Liebenow, D.K.*, M.J. Cohen, T. Gumbricht, K.D. Shepherd and G. Shepherd. 2012. Do ecosystem services influence household wealth in rural Mali? Ecological Economics 82:33-44
26. Heffernan, J.B., A.R. Albertin†, M.L. Fork, B.G. Katz and M.J. Cohen. 2012. Denitrification and inference of nitrogen sources in the karstic Floridan Aquifer. Biogeosciences 9:1671-1690
25. McLaughlin, D.L†. and M.J. Cohen. 2011. Thermal Artifacts in Measurements of Fine Scale Water Level Variation. Water Resources Research 47: 3 PP., 2011 doi:10.1029/2010WR010288
24. McLaughlin, D.L†, M.T. Brown and M.J. Cohen. 2011. The Ecohydrology of a pioneer wetland species and a drastically altered landscape. Ecohydrology. doi: 10.1002/eco.253
23. De Montety, V., J.B. Martin, M.J. Cohen, C. Foster and M.J. Kurz. 2011. Influence of diel biogeochemical cycles on carbonate equilibrium in a karst river. Chemical Geology 283:31-43
22. Cohen, M.J., D.L. Watts*, J.B. Heffernan† and T.Z. Osborne. 2011. Reciprocal Biotic Control on Hydrology, Nutrient Gradients and Landform in the Greater Everglades. Critical Reviews in Environmental Sciences 35:392-409
21. Osborne, T.Z., S. Newman, P.I. Kalla, G.L. Bruland, M.J. Cohen, L.J. Scinto and L.R. Ellis. 2011. Landscape patterns of significant soil nutrients and contaminants in the Greater Everglades ecosystem: Past, present and future. Critical Reviews in Environmental Science and Technology 41:121-148
20. Watts, D.L.*, M.J. Cohen, J.B. Heffernan†, and T.Z. Osborne. 2010. Hydrologic modification and loss of self-organized patterning in the Everglades ridge-slough mosaic. Ecosystems 13:813-827
19. Heffernan, J.B. †, and M.J. Cohen. 2010. Direct and indirect coupling of primary production and diel nitrate dynamics in a sub-tropical spring fed river. Limnology and Oceanography 55:677-688
18. Heffernan, J.B. †, D.M. Liebowitz*, T.K. Frazer, J.M. Evans and M.J. Cohen. 2010. Algal blooms and the nitrogen-enrichment hypothesis in Florida springs: Evidence, alternatives and adaptive management. Ecological Applications 20:816-829
17. Heffernan, J.B.†, M.J. Cohen, T.K. Frazer, R.G. Thomas, T.J. Rayfield, J. Gulley, J.B. Martin, J.J. Delfino and W.D. Graham. 2010. Hydrologic and biotic influences on nitrate removal in a subtropical

spring-fed river. Limnology and Oceanography 55:249-263
16. Brown, M.T., M.J. Cohen and S. Sweeney. 2009. Predicting national sustainability: The convergence of energetic, economic and environmental realities. Ecological Modelling 220:3424-3438
15. Krediet, C.J., K.B. Ritchie, M.J. Cohen, E.K. Lipp, K. Patterson-Sutherland and M. Teplitski. 2009. Utilization of mucus from the Coral Acropora palmate by the Pathogen Serratia marcescens and by environmental and coral commensal bacteria. Applied and Environmental Microbiology 75:3851-3858
14. Evans, J.M.† and M.J. Cohen. 2009. Regional water resource implication of bioethanol production in the Southeastern United States. Global Change Biology 15:2261-2273
13. Fraulo A.*, M.J. Cohen and O. Liburd. 2009. Visible/near infrared reflectance (VNIR) spectroscopy for detecting Two-spotted Spider Mite (Acari: Tetranychidae) Damage in Strawberries. Environmental Entomology 38:137-142
12. Cohen, M.J., S. Lamsal†, T.Z. Osborne, J.C. Bonzongo, K.R. Reddy and S. Newman. 2009. Soil Total Mercury Concentrations Across the Greater Everglades. Soil. Sci. Soc. Am. J. 73:675-685
11. Romanelli, T.*, M.J. Cohen, M. Milan and M.T. Brown. 2008. Emergy synthesis of intensive eucalyptus cultivation in Sao Paolo, Brazil. Forest Science 54:228-241
10. Cohen, M.J., E.J. Dunne and G.L. Bruland. 2008. Spatial Structure of Isolated Forested Wetland Soils and Implications for Sampling Design and Condition Assessment. Wetlands 28:34-49
9. Cohen, M.J., M.W.Clark and J. Paris*. 2007. Determination of phosphorus sorption capacity in wetland soils using NIR spectroscopy. Wetlands 27:1098-1111
8. Cohen, M.J., R. Mylavarapu, I. Bogrecki* and D. Lee. 2007. Reflectance spectroscopy for routine agronomic soil analyses. Soil Science 172:469-485
7. Roth, B.E.*, K.C. Slatton and M.J. Cohen. 2007. On the potential for high-resolution lidar to improve rainfall interception estimates in forest ecosystems. Frontiers in Ecology & Environment 5:421-428
6. Cohen, M.J. and M.T. Brown. 2007. A Model of hierarchical wetland networks for watershed stormwater management. Ecological Modelling 201:179-193
5. Brown, M.T., M.J. Cohen, E. Bardi*, and W. Ingwersen*. 2006. A systems approach to biodiversity. Aquatic Sciences 68:254-277
4. Cohen, M.J., S. Dabral*, W.D. Graham, J.P. Prenger and W.F. Debusk. 2006. Evaluating ecological condition using soil biogeochemical parameters and near infrared reflectance spectra. Environmental Monitoring and Assessment 116:427-447.
3. Cohen, M.J., J.P. Prenger and W.F. DeBusk. 2005. Visible-near infrared reflectance spectroscopy for rapid, non-destructive assessment of wetland soil quality. J. of Environ. Qual. 34:1422-1434
2. Cohen, M.J., K.D. Shepherd and M.G. Walsh. 2004. Empirical reformulation of the Universal Soil Loss Equation for erosion risk assessment in a tropical watershed. Geoderma 124:235-252
1. Cohen, M.J., S. Carstenn and C.R. Lane. 2004. Floristic quality indices for biotic assessment of depressional marsh condition in Florida. Ecological Applications 14:784-794

Date	Total Award	Funding Agency	Title	Role	Award to Cohen Lab
2023-present	$375,000	NRCS	The Carbon Dynamics of Managed Landscapes	PI	$275,000
2023-present	$999,900	DOE	Water and Carbon Dynamics in Landscapes with a Shifting Terrestrial Aquatic Interface	PI	$220,000
2023 – present	$460,000	NSF	Space-Time Variability of Water Quality at Continental Scales	Co-PI	$225,000
2022-present	$354,000	NRCS	Hydrological Services of Upland Forest Management on Depression Wetlands	PI	$354,000
2022 - present	$250,000	NCASI	Carbon Stocks and Flows Across Pine Flatwoods Landscapes	PI	$250,000
2022 – 2023	$99,000	ACT, NFLT, Tall Timbers	A GIS-Based Water Yield Tool	PI	$99,000

2020 - 2023	$250,000	NCASI	Riparian Forest Composition and Function in Private Timber Lands	PI	$250,000
2021 – present	$700,000	SRWMD	Water Yield from Intensively Managed Timber Landscapes	PI	$700,000
2021 – present	$540,000	SRWMD	Spring Reversals and Ecological Change in Florida's Springs	PI	$540,000
2020 - 2023	$55,000	FWCC	Wetland Hydrology in Restored Landscapes	PI	$55,000
2016 – 2020	$838,000	National Science Foundation	A Day in the Life of a River: Lagrangian Sampling of Metabolism and Nutrient Spiraling Through River Networks	PI	$475,000
2016 – 2020	$425,000	EPA	National Wetland Condition Assessment	Co-PI	$125,000
2016 – 2020	$4,400,000	National Science Foundation	Defining Stream Biomes to Understand and Forecast Ecosystem Change	Co-PI	$441,000
2014-2019	$900,000	National Science Foundation	The Ecological Drill Hypothesis: Biotic Control on Carbonate Dissolution in a Low Relief Patterned Landscape	PI	$367,000
2016-2017	$239,000	EPA 319 Funds	Monitoring the Effectiveness of Forest Fertilization Best Management Practices	PI	$239,000
2014-2018	$655,000	FDACS, SRWMD, SJRWMD, SWFWMD	Forest Management for Increased Water Yield	PI	$655,000
2014-2017	$375,000	SWFWMD	Sediment Controls on Algal Abundance in Spring Rivers	PI	$375,000
2014-2017	$3,000,000	SJRWMD	Springs Protection Initiative – Silver River	Co-PI	$220,000
2013-2014	$29,400	Gainesville Regional Utilities	Kanapaha Water Reclamation Facility Aquifer Denitrification Study	PI	$22,000
2012-2016	$75,000	Rayonier and Plum Creek	The Forest Fertilization Project	PI	$75,000
2012 – 2018	$275,000	NCASI	The Forest Fertilization Project	PI	$275,000
2013-2015	$160,000	Florida Forest Service	The Forest Fertilization Project	PI	$160,000
2011	$3,000	Rayonier, Inc.	Implications of Upland Restoration on Regional Water Availability	PI	$3,000
2011	$29,617	McIntire-Stennis mini-grant	New Eyes in the Water: Detection Fine-Scale Variation in Soluble, Organic and Particulate Phosphorus in Flowing Waters	PI	$29,617
2011	$10,470	McIntire-Stennis mini-grant	Quantifying Water Yield from Upland Restoration and Management	PI	$10,470
2010-2011	$31,825	Three Rivers Trust	Gastropod Controls on Algal Proliferation in the Ichetucknee River	PI	$31,825
2010-13	$64,800	Florida DEP	Springs Restoration Plans	PI	$64,800
2010-2018	$896,639	US Army Corps of Engineers	Mechanisms of Ridge-Slough Maintenance and Degradation across the Everglades	PI	$647,469
2009-2013	$839,446	South Florida Water Management District	Monitoring and Assessment Plan (MAP) Greater Everglades Landscape Pattern-Ridge, Slough, and Tree Island Mosaics	Co-PI	$195,787
2010-2012	$300,000	Southwest Florida Water Mgmt District	Nitrate Processing in Springs Coast Rivers	Co-PI	$55,000
2009-2011	$534,546	National Science Foundation	Sensor Networks for Quantifying Surface-Groundwater Mixing and Nutrient Delivery in the Santa Fe River, Florida.	Co-PI	$145,015
2009-11	$48,000	Three Rivers Trust, Inc.	On the Age of Ichetucknee Springs Water	Co-PI	$6,000
2008-	$78,400	St Johns River Water	Spatial Nutrient Loading in the Newnans	PI	$78,400

2010		Mgmt. District	Lake Watershed: Continuing Monitoring		
2008-2010	$115,800	US Environmental Protection Agency	Hydrologic Changes in Isolated Forested Wetlands in Response to Urbanization	PI	$115,800
2008-2010	$262,500	St Johns River Water Mgmt. District	Mechanisms of N Loss in Springs and Rivers	PI	$180,200
2008-2011	$406,000	National Science Foundation	Controls on Delivery and Fate of Water, Nitrogen, and Calcium in a Karst River	Co-PI	$112,000
2008-2009	$2,950	South Florida Water Mgmt. District	Statistical Modeling of Chemotaxonomic and Water Quality Associations	PI	$2,950
2008-2010	$396,700	US Environmental Protection Agency	Regeneration of Forested Wetlands after Harvest: Evaluation of BMPs	Co-PI	$97,000
2008	$5,000	Alachua County EPD	Ion Chemistry of North Florida Springs	PI	$5,000
2007-08	$267,500	Florida DEP	Springs Nutrient Summary and Synthesis	Co-PI	$41,089
2007-2008	$19,600	Three Rivers Trust, Inc.	Isotope Tracing of Nitrate Sources in the Ichetucknee Springs Complex	PI	$19,600
2007-2009	$224,000	US Army Corps of Engineers	Scales and Resolution of Soil Nutrient Mapping in the Greater Everglades	Co-PI	$84,600
2007-2010	$466,700	US Army Corps of Engineers	Evaluating Decomposition Dynamics, and Community Composition in the Ridge-Slough Mosaic of the Florida Everglades	Co-PI	$98,230
2006 - 2008	$496,728	National Science Foundation	A Distributed Sensor Array for Water Flow and Nitrate Flux in the Santa Fe Basin	PI	$44,377
2006 - 2008	$155,421	St. Johns River Water Mgmt District	Spatial Nutrient Loading in the Newnans Lake Watershed	PI	$155,421
2006 - 2007	$146,073	South Florida Water Mgmt. District	Mapping Sediment Quality in Lake Okeechobee	PI	$146,073
2006 - 2007	$6,794	South Florida Water Mgmt. District	Mapping Sediment Quality in Lake Okeechobee	PI	$6,794
2006 - 2007	$146,490	US DoI/National Park Service	Assessing Restoration Performance Measure at Multiple Scales in the Greater Everglades	PI	$146,490
2006 - 2007	$5,000	PBS&J (Consulting firm)	Water Supply Decision Support for the Lower East Coast of Florida	PI	$5,000
2005-06	$212,814	Florida DACS	NIR Spectroscopy for Agronomic Analysis	Co-PI	$156,600
TOTAL	**$21,627,113**				**$9,081,607**