

Adam M. Milewski

Associate Professor – University of Georgia

Director: Water Resources & Remote Sensing Laboratory (WRRS: <http://wrrs.uga.edu>)

Co-Director: Advancing Research and Capacity in Hydrologic Education and Science (ARCHES: <http://arches.wrrs.uga.edu>)

President: Milewski Groundwater Services LLC

Other Affiliations/Titles: Institute for Resilient Infrastructure Systems, UGA Water Resources Faculty, IAH Board of Directors, Consortium of Universities for the Advancement of Hydrologic Sciences

EDUCATION

- 2005-2008 Doctor of Philosophy in Hydrogeology, Western Michigan University, Kalamazoo, Michigan, Dissertation: Remote sensing solutions for estimating runoff and recharge in arid environments, 129 p.
- 2000-2004 Bachelor of Science in Geology, State University of New York at Buffalo, Buffalo, New York

PROFESSIONAL EXPERIENCE

- 2016 – Present Associate Professor, Hydrogeology, Department of Geology, University of Georgia, Athens, Georgia
- 2011 – 2016 Assistant Professor of Water Resources; Department of Geology, University of Georgia, Athens, Georgia
- 2008 – 2011 Principal Research Associate; Earth Sciences Remote Sensing Facility, Western Michigan University, Kalamazoo, Michigan
- 2006 – 2007 Adjunct Professor; Department of Geology, Grand Valley State University, Allendale, Michigan

ADDITIONAL EDUCATION

- 2012 Faculty Development Workshop: Integrating Sustainability across the Curriculum, Office of Sustainability, University of Georgia
- 2009 Geological Society of America Short Course: Estimating Rates of Groundwater Recharge
- 2006 Hydrogeology Field Course, Western Michigan University: Applied Hydrogeology Field Methods
- 2004 Argonne National Laboratory Short-Term Scholar: Aquatic Remote Sensing
- 2004 University at Buffalo, Buffalo, New York, Field Camp in central Rocky Mountains (Colorado, Utah, and Wyoming), 6 week mapping and sedimentary geology course

AWARDS & HONORS

- 2013 Professor of the Year; Department of Geology, University of Georgia
- 2008-2011 ESRS Postdoctoral Fellowship, Western Michigan University
- 2008 All-University Research Scholar, Western Michigan University
- 2007 Future Faculty Award, Academic Keys
- 2007 Gwen Frostic Fellowship, Western Michigan University
- 2005-2008 David W. Kuenzi Award, Department of Geosciences, Western Michigan University; North-Central GSA Grant, Geological Society of America; Graduate Student Research and International Travel Award, Department of Geosciences, Western Michigan University; Advisory Council & W. Richard Laton Scholarships, Department of Geosciences, Western Michigan University
- 2004 Reginald Pegrum Travel Award, Department of Geology, University at Buffalo

INVITED PRESENTATIONS

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|------|---|
| 2016 | Department of Geography & Geology, West Virginia University |
| 2015 | College of Arts & Sciences, Year of the Middle East, University of Kentucky |
| 2015 | Department of Geology & Geography, Georgia State University |
| 2015 | Winter Enrichment Program, King Abdullah University of Science & Technology, Saudi Arabia |
| 2014 | Department of Earth and Environmental Sciences, University of Michigan |
| 2013 | Department of Crop & Soil Sciences, University of Georgia |
| 2013 | Department of Agricultural Engineering, Bogor Agricultural University (IPB), Bogor, Indonesia |
| 2013 | Department of Engineering, University of Brawijaya, Malang, Indonesia |
| 2013 | Department of Geological Engineering, Middle East Technical University, Ankara, Turkey |
| 2012 | Department of Geography, University of Georgia |
| 2011 | Department of Geology, University of Kansas |
| 2011 | Department of Geology, University of Georgia |
| 2011 | Department of Geology and Environmental Geosciences, Northern Illinois University |
| 2011 | Department of Earth and Environmental Science, University of Kentucky |

TEACHING EXPERIENCE

University of Georgia

GEOL 1120: Environmental Geoscience, 2011-2015 (~90 students/class)
GEOL 1120E: Environmental Geosciences Online, Summer 2016-2017 (~30 students/class)
GEOL 3020: Surficial & Near Surficial Processes, 2012-20117 (~35 students/class, co-taught with Paul Schroeder)
GEOL 4220: Hydrogeology, 2017, (~50 students/class)
GEOL 4530/6530: Principles and Applications of GIS for Geologists, 2015-2017 (~25 students/class)
GEOL 8710: Watershed-Scale Modeling, 2014-2016 (~15 students/class, co-taught with David Radcliffe)
GEOL 8720: Geologic & Hydrologic Remote Sensing, 2013-2017 (~10 students/class)
GEOL 8730: Principles & Environmental Applications of GIS, 2013 (~15 students/class)
GEOL 8790: Hydrologic Programming, 2016 (~10 students)
FYOS: Water – The Most Interesting Resource in the World, 2014-2017 (~15 students/class)

Western Michigan University – Teaching Assistant

GEOS 5270: Principles of Well Drilling and Installation Field Course
GEOS 5280: Principles and Practices of Ground-water Sampling and Monitoring Field Course
GEOS 5260: Principles and Practices of Aquifer Testing Field Course
GEOS 5250: Environmental Surface Geophysics Field Course
GEOS 1000: Introduction to Physical Geology
GEOS 5210: Environmental Remote Sensing
GEOS 5350: Numerical and Spatial Data Analysis

Grand Valley State University – Adjunct Professor

GLY 102: Introduction to Environmental Geology, 2006-2007 (~30 students)

Short Courses

Field and Computational Techniques in Hydrogeology, KAUST, Jeddah, Saudi Arabia, 2015
GIS & Remote Sensing Applications in Water Resources, IAH Conference, Marrakech, Morocco, 2014
Remote Sensing & GIS Applications in Hydrogeology, University of Georgia, Athens, Georgia, 2012-13
Remote Sensing & GIS Applications in Hydrogeology, ICWRE Conf., Merrakesh, Morocco, 2011
Hydrologic Applications in Kuwait, Western Michigan University, 2008
Advanced Calibration Techniques Using SWAT, Cairo University, Cairo, Egypt, 2006
Developing a Web-based GIS Using ArcIMS, Cairo University, Cairo, Egypt, 2006
Hydrologic Modeling Using SWAT, Cairo University, Cairo, Egypt, 2005
Introduction to Remote Sensing Principles, Cairo University, Cairo, Egypt, 2005

Web-based GIS Applications, Cairo University, Cairo, Egypt, 2005

SOFTWARE EXPERIENCE

Hydrologic Modeling Packages: GMS, SWAT, WMS, HEC-HMS, Visual MODFLOW, MIKE-SHE

GIS Packages: ARC/INFO, ArcGIS, ArcIMS, MapInfo

Image Processing Packages: ERDAS, PCI, ENVI, DORIS, SARscape

Programming Languages: IDL, Python, JAVA, ArcXML, RESDEM

Database & Webpage Experience: Oracle, Access, HTML design and administration

GRADUATE STUDENTS

Matthew Thomas, M.S. expected Spring 2019. Terrestrial Water Storage Changes in Georgia.

David Richards, M.S. expected Spring 2019, Natural Resource Changes on the Southeastern Coast of Georgia.

Michael Durham, Ph.D. expected Spring/Summer 2018. Dissertation: Assessment of Satellite-based Hydrologic Models within the Middle East & North Africa (MENA) Region Using Soil Temperature Probes and the Soil and Water Assessment Tool (SWAT) Model.

Holly Hutcheson, M.S. expected Spring 2018. Thesis: Water Resources Assessments in the Southeast.

Abigail Knapp, M.S. 2018. Thesis: Hydroclimatic Drivers of CyanoHarmful Algal Blooms.

Khalil Lezzaik, Ph.D., 2016. Dissertation: An Integrated Approach to Water Scarcity Assessment and Adaptation Options in the Middle East and North Africa Region.

Wondwosen Seyoum, Ph.D., 2016. Dissertation: Spatial Disaggregation of GRACE Water Storage Change: An Application for Understanding Water Cycle Dynamics at Local Scales.

Rachel Rotz, M.S., 2016. Thesis: Understanding the Role of Precipitation Dynamics on the Formation and Sustainability of Freshwater Lenses.

Matthew Cahalan, M.S., 2015. Thesis: An Integrated Approach for Sinkhole Identification and Triggering Mechanisms.

Racha El Kadiri, Ph.D., 2015. (Co-Advised). Dissertation: GIS and Remote Sensing Applications for Assessing, Modeling, and Mitigating Environmental Hazards in Mountainous Areas: A Case Study from Jazan, Saudi Arabia.

UNDERGRADUATE STUDENTS

Rachel Rotz, Spring 2014. Senior Thesis: Verification of Rapid Focused Recharge in Depressions Located in Kuwait and the Arabian Peninsula Using Thermal and VNIR Remote Sensing.

Caroline Potterf, Spring 2015. CURO Thesis: Overview of the Water Quality on the UGA Campus

Elizabeth Dwyer, Spring 2015. CURO Thesis: Understanding the Role of Streamflow and Lake Temperature in Forming Harmful Algal Blooms in Lake Lanier, GA.

Sage Maher, Fall 2016. CURO Thesis: Comparative Analysis of Runoff and Erosion in Varying Conditions.

Claire Webster, Spring 2017. Senior Thesis: Climatic Changes across the National Wildlife Refuges

COMMITTEE MEMBER

James Deemy, expected Spring 2017. Dissertation: Isolated Wetland Mapping, Connectivity Assessment and Water Quality in the Dougherty Plain of Georgia.

Ike Astuti, expected Fall 2017. Dissertation: Characterizing the Long Term Impacts of Watershed Level Land Use Changes on the Ecosystem Dynamics of Tropical Reservoirs in Java, Indonesia.

Corbin Kling, 2016, Thesis: Topographic Expressions of Large Thrust Faults on Mars

Adam Forsberg, Fall 2015. Thesis: Comparison of Model-based (SWAT) against field-based (TBET) Phosphorus Index Predictions

Ryan Jubran, Spring 2015. Thesis: Electrical Resistivity Methods for Detecting Sinkholes in Georgia

Don Lundy, Fall 2014. Dissertation: An Investigation of the Relationship Between Lateral Spreading and Mass Depletion of an LNAPL Plume in Contact with Groundwater

Kirk Fraley, Fall 2014. Thesis: A Variable-Density Model to Determine Possible Sources of Elevated Total Dissolved Solids in Suwannee River Basin Springs, North-Central, Florida.
 Bill Wylie, Spring 2014. Thesis: Drainage Patterns and Characterization of the Mobile Body of the Allison Creek Landslide in Macon County, North Carolina.
 Kimberly Coke, Spring 2013. Thesis: DNA Tracers in Hydrology.

SERVICE

2016-present Chair, Early Career Hydrogeologist Network, US Chapter of the International Association of Hydrogeologists
 2013-present Environmental Literacy Committee; University Curriculum Committee Sub-committee, University of Georgia
 2013-2014 Search Committee: Structural Geology; Department of Geology, University of Georgia
 2012-present Associate Editor; Environmental Earth Sciences
 2012-present Conference Sessions Chaired: Geological Society of America, American Geophysical Union, International Association of Hydrogeologists, CUAHSI Webinar
 2012-present Faculty Affiliate, Center for Integrative Conservation Research, University of Georgia
 2012 Search Committee: Remote Sensing; Department of Geography, University of Georgia
 2012 Space Committee, Department of Geology, University of Georgia
 2014-present Watts-Wheeler Committee, Department of Geology, University of Georgia
 2011-2012 Admissions & Awards Committee, Department of Geology, University of Georgia
 2011-2014 Computer Committee, Department of Geology, University of Georgia
 2011 Employment Committee, Department of Geology, University of Georgia
 2011-present CUAHSI, University of Georgia representative
 2011-present American Geophysical Union, Student Poster Judge
 2009-present Proposal reviewer for National Science Foundation, National Institute for Water Resources, National Aeronautics and Space Administration, Illinois Geological Survey, Georgia Water Resources
 2007-present Manuscript reviewer for Journal of Hydrology, Environmental Earth Sciences, Computers & Geosciences, Hydrologic Processes, Groundwater, Environmental Science & Technology, Journal of Remote Sensing, Computers and Electronics in Agriculture, Journal of Applied Remote Sensing, Journal of Spatial Hydrology, Earth Interactions, International Journal of Water, Water Resources Research, Advances in Water Resources, Water

ADMINISTRATIVE/LEADERSHIP ACTIVITIES

2018-present Research Facilitator, Summer Leadership Institute, University of Georgia
 2017-present Associate Department Head, Department of Geology, University of Georgia
 2017-present Co-Facilitator, Faculty Learning Community, University of Georgia
 2017-present Franklin College International Studies Committee, University of Georgia
 2016-present Board of Directors, US Chapter, International Association of Hydrogeologists
 2016-present Chair, Early Career Hydrogeologist Network, US Chapter of the International Association of Hydrogeologists
 2016-present Office of the Vice Provost of Instruction (OVPI), Faculty Advisory Board, University of Georgia
 2015-present Department of Geosciences Advisory Board, Western Michigan University

PROFESSIONAL SOCIETIES

CUAHSI, Representative for UGA, 2011-Present
Geological Society of America, member, 2003-Present
American Geophysical Union, member, 2003-Present
International Association of Hydrogeologists, 2011-Present

GRANTS

2018-2019 Milewski, A., P.I. – Ground Validation of Remote Sensing-based Precipitation Products in Kuwait, Kuwait University, (2018-2019; Total: **\$13,500**)

2017-2020 Milewski, A., P.I. – Hydrologic Inventory and Assessment of NWRs, National Fish and Wildlife Service (USFWS), (2017-2020; Total: **\$78,000**)

2017-2019 Milewski, A., P.I. – Impacts of Hydrologic Extremes on Natural Resources, National Parks Service (NPS), (2017-2019; Total: **\$61,000**)

2017-2018 Milewski, A., Co-P.I. – (PI – Liz Kramer; University of Georgia) - Capacity Building for Research and Training for Food System Sustainability and Security, University of Georgia, (2017-2018; Total: **\$15,000**)

2016-2018 Milewski, A., P.I. – Water Resource Inventories and Assessments for National Wildlife Refuges within the Southeast Region, National Fish and Wildlife Service (NFWS), (2016-2018; Total: **\$110,000**)

2016-2017 Milewski, A., Co-P.I., (PI – David Leigh; University of Georgia) – Investigating the Paleohydrology and Flood Risk in the Southeastern US, Electric Power Research Institute (EPRI), (2016-2018; Total: **\$35,000**)

2016-2017 Milewski, A., P.I. – Multi-Touch Open Education Resources (OER): A New Pedagogy for Geoscience Education and Research, Learning Technologies Grants, (2015-2016: Total: **\$24,768**)

2016-2021 Milewski, A., P.I., ERASMUS+ Higher Education Student and Staff Mobility, European Union ERASMUS program, (2016-2021; Total: \$1,800,000; UGA: ~**\$150,000**)

2015-2016 Milewski, A., P.I. - Utilizing NASA Earth Observations to Monitor Sinkhole Development and Identify Risk Areas, NASA DEVELOP, (2015-2016; Total: **\$15,000**)

2014-2015 Milewski, A., P.I. – ARCHES: An Innovative Workshop Combining Hydrogeology, Satellite Remote Sensing/GIS, and Modeling to Better Understand Water Resources, KAUST Winter Enrichment Program, (2014-2015; Total: **\$25,000**)

2013-2014 Milewski, A., P.I., Assessment and Characterization of TRMM Satellite Precipitation Products in Varying Climatic, Topographic, and Hydrologic Regimes, University of Georgia Provost Summer Fund, (2013-2014; Total: **\$5,000**)

2012-2014 Milewski, A., Co-P.I., (PI – Alan Fryar; University of Kentucky) – Building Opportunity Out of Science and Technology (BOOST): Helping Hydrologic Research (H2O) in Indonesia and Turkey, US State Department – Bureau of Oceans and International Environmental and Scientific Affairs, (2012-2014; Total: **\$198,000**; UGA: \$85,000)

2012-2013 Milewski, A., P.I., Using Radar Interferometry (InSAR) to Evaluate Land Subsidence Caused by Excessive Groundwater Withdrawal in Morocco, University of Georgia Provost Summer Fund, (2012-2013; Total: **\$5,000**)

2011-2013 Milewski, A., Co-P.I., (PI – Alan Fryar (University of Kentucky) – Building Opportunity Out of Science and Technology (BOOST): Energizing Young Middle Eastern and North African Scientists – Enhancing Capacity for Water Resource Studies in Egypt and Morocco, US State Department, (2011-2013; Total: **\$250,000**, UGA: \$80,000)

- 2011-2015 Milewski, A., Co-I., (PI - Mohamed Sultan) - Use of GRACE, Remote Sensing, and Traditional Datasets for Modeling Time-Dependent Water Partitioning on Continental Scales: A Case Study from Africa, Funded by NASA. (2011-2015; Total: **\$453,000**)
- 2010-2013 Milewski, A., Co-P.I., (PI –Mohamed Sultan) - Detailed Studies on Landslides in Jazan Area (Saudi Arabia), Saudi Geological Survey, (2010-2013; Total: **\$300,000**)
- 2010-2011 Milewski, A., Co-P.I., (PI - Ahmad Al-Dousari) - Groundwater Potentiality Studies in Kuwait, Kuwait Institute for Scientific Research, (2010; Total: **\$5,000**)
- 2009-2011 Milewski, A., Co-P.I., (PI – Richard Laton), Identifying Areas for Artificial Recharge in the Mojave Desert, Mojave Water Agency & University of California State at Fullerton, (2009-2012; Total: **\$200,000**, WMU: \$75,000)
- 2009-2010 Milewski, A., P.I., Hydroinformatics: Bridging the Gap Between Technology and Hydrology, Funded by Western Michigan University, (2009-2010; Total: **\$20,000**)
- 2008-2010 Milewski, A., P.I., Developing Cost-effective Methodologies for Groundwater Assessment and Exploration in Sinai, Funded by National Institute of Standards and Technology (NIST) in cooperation with USDA, (2008-2010; Total: **\$8,500**)

Pending Grants

- 2018-2020 Milewski, A., Co-P.I., Integrating and Downscaling NASA Products for Eco-engineering Decision Scaling: Balancing Groundwater Extraction with Environmental Flows, NASA, (2018-2020; Total: **\$240,875**)
- 2018-2020 Milewski, A., P.I., Collaborative Research (IRES): A Multi-Faceted Approach for Characterizing and Understanding Natural and Anthropogenic Impacts on Groundwater Resources and Recharge in Morocco, NSF, (2018-2021; Total: **\$207,000**)

In-Kind Data Grants

- 2014-2015 Milewski, A., P.I. – Analysis of Geologic and Hydrologic Controls for Subsidence Monitoring and Sinkhole Hazard Assessment in Dougherty Plain, Georgia, USA, European Space Agency (ESA), (2014-2015; Total In-Kind: **\$15,000**)
- 2013-2014 Milewski, A., P.I. – Verification of Rapid Focused Recharge in Depressions Located in Kuwait and the Arabian Peninsula Using Thermal and VNIR Remote Sensing, European Space Agency (ESA), (2013-2014; Total In-Kind: **\$20,000**)
- 2012-2013 Milewski, A., P.I. – Using Radar Interferometry (InSAR) to Evaluate the Land Subsidence Caused by Excessive Groundwater Withdrawal in Morocco, European Space Agency (ESA), (2013-2014; Total In-Kind: **\$25,000**)

PUBLICATIONS

Peer-Reviewed Journals and Volumes (journal impact factor in parentheses)

* Denotes student-authored manuscript.

Manuscripts in Preparation: (Submissions by August 2018)

*Durham, M., and **Milewski, A.**, 2018, Assessing the Effect of Transmission Loss Variability on Hydrologic Model Performance, *Hydrologic Processes*, In Preparation.

Milewski, A., and Leigh, D., 2018, Tractive Load Estimates in the Tennessee River Basin, *Natural Hazards*, In Preparation.

Manuscripts in Review or Press:

*Rotz, R., and **Milewski, A.**, 2018, Investigating Inland Freshwater Lens Dynamics in Response to Recharge Rate Utilizing a Physical Hydrologic Model, *Water Resources Research*, In Review.

- Yilmaz, K., Milewski, A., and Schroeder, P., 2018, Baseline Assessment of the Impacts of Multi-scalar time Change on Lake Iznik, *Hydrogeology*, In Review.
- *Astuti, I., Mishra, D., **Milewski, A.**, and Kamalakanta, S., 2018, Impact of Land Use/Land Cover Change on Surface Runoff in an Increasingly Urbanized Tropical Watershed, Indonesia, *Water*, In Review.
- Milewski, A.**, Seyoum, W., Elkadiri, R., and Durham, M., 2018, Multi-Scale Hydrologic Sensitivity to Climatic and Anthropogenic Changes in Morocco, *Hydrogeology*, In Review.
- Kherouf, M., Maoui, A., Benaabidate, L., Derradji, F., and **Milewski, A.**, 2018, Hydrochemical and Isotopic Investigation in the Djelfa Syncline Aquifer, Algeria, *Desalination and Water Treatment*, In Review.
- *Lezzaik, K., and **Milewski, A.**, 2018, Sensitivity Analysis of the Groundwater Risk Index in the Middle East and North Africa Region, *Hydrogeology*, In Review.
- *Lezzaik, K. and **Milewski, A.**, 2017, Statistical and Spatial Intercomparison and Classification of GRACE Equivalent Water Height Products in Arid Environments, *Remote Sensing*, Re-submission. (2.633).
- Milewski, A.**, Durham, M., Rashed, M., and Abouelmagd, A., 2018, Field-derived Estimates of Ephemeral Channel Transmission Loss Rates and Variability in a Hyper-Arid Environment, *Advances in Water Resources*, In Review, (2.780).
- Abouelmagd, A., Krishnamurthy, R.V., Sultan, M., Kehew, A., **Milewski, A.**, McCabe, M., and Altaf, M., 2018, Paleoclimatic Insights into the Depleted Isotopic Ratios of Fossil Aquifer Waters, Northern Africa, *Journal of Arid Environments*, In Review. (1.822)

Published Manuscripts:

- *Kamalakanta, S., **Milewski, A.**, Hoghooghi, N., Panda, S., and Mani, S., 2018, Assessment of Miscanthus Yield Potential from Strip-mined Lands (SML) and its Impacts on Stream Water Quality, *Industrial Crops and Products*, Accepted with Revision.
- *Cahalan, M., and **Milewski, A.**, 2018, Sinkhole Formation Dynamics and Geostatistical-Based Prediction Analysis in a Mantled Karst Terrain, *CANTENA*, In Press.
- *Lezzaik, K., **Milewski, A.**, and Mullen, J., 2018, The Groundwater Risk Index: Development and Application in the Middle East and North Africa Region, *Science of the Total Environment*, In Press.
- Wehbe, Y., Temimi, M., Ghebreyesus, D., **Milewski, A.**, and Norouzi, H., 2018, Consistency of Precipitation Products over the Arabian Peninsula and Interactions with Soil Moisture and Water Storage, *Hydrological Sciences*, In Press.
- *Lezzaik, K., and **Milewski, A.**, 2018, A Quantitative Assessment of Groundwater Resources in the Middle East and North Africa Region, *Hydrogeology*, 26:251, DOI 10.1007/s10040-017-1646-5.
- *Seyoum, W., and **Milewski, A.**, 2017, Improved Methods for Estimating Local Terrestrial Water Dynamics from GRACE in the Northern High Plains, *Advances in Water Resources*, 110, 279-290, DOI 10.1016/j.advwatres.2017.10.021
- Wehbe, Y., Ghebreyesus, D., Temimi, M., and **Milewski, A.**, 2017, Assessment of the Consistency among Global Precipitation Products over the United Arab Emirates, *Journal of Hydrology: Regional Studies*, 12, 122-135.
- *Seyoum, W., and **Milewski, A.**, 2016, Monitoring and Comparison of Terrestrial Water Storage Changes in the Northern High Plains using GRACE and In-situ Based Integrated Hydrologic Models, *Advances in Water Resources*, 94, 31-44. (4.90)
- Milewski, A.**, El Kadiri, R., and Durham, M., 2015, Assessment and Intercomparison of TMPA Satellite Precipitation Products in Varying Climatic and Topographic Regimes in Morocco, *Remote Sensing*, v. 7, 5697-5717. (2.633)
- *Seyoum, W., **Milewski, A.**, and Durham, M., 2015, Assessment of the Relative Impact of Natural Processes and Human Activities on the Hydrology of the Central Rift Valley Lakes, Ethiopia, *Hydrologic Processes*, DOI: 10.1002/hyp.10490 (2.696).

- Ghobani, T., Bellal, S.A., and **Milewski, A.**, 2015, A fragile coastal ecosystem threatened on the southern shore of the Mediterranean, *Méditerranée*, 125 (2), 153-164.
- *Dailey, D., Sauck, W., Sultan, M., **Milewski, A.**, Ahmed, M., Laton, R., El Kadiri, R., Foster, J., Schmidt, C., Al Harbi, T., 2015, Geophysical, Remote Sensing, GIS, and Isotopic Applications for a Better Understanding of the Structural Controls on Groundwater Flow in the Mojave Desert, California, *Journal of Hydrology: Regional Studies*, v. 3, 211-232.
- Milewski, A.**, Sultan, M., Al-Dousari, A., and Yan, E., 2014, Geologic and Hydrologic Settings for Development of Freshwater Lenses in Arid Lands, *Hydrologic Processes*, v. 7(1), 3185-3194. (2.696)
- Abouelmagd, A., Sultan, M., Sturchio, N., Soliman, F., Rashed, M., Ahmed, M., Kehew, A., **Milewski, A.**, and Chouinard, K., 2014, Paleoclimate Record in the Nubian Sandstone Aquifer, Sinai Peninsula, Egypt, *Quaternary Research*, v. 81(1), 158-167 (2.52).
- *Alharbi, T., Sultan, M., Sefry, S., El Kadiri, R., Ahmed, M., Chase, R., **Milewski, A.**, Abu Abdullah, M., Emil, M., and Chouinard, K., 2014, An Assessment of Landslide Distribution in the Faifa Area, Saudi Arabia Using Remote Sensing and GIS Techniques, *Natural Hazards and Earth Systems Sciences*, 6685-6717. (1.751)
- *Becker, D., Sultan, M., **Milewski, A.**, Becker, R., Sauck, W., Soliman, F., Rashed, M., Yan, E., Wagdy, A., Ahmed, M., Chouinard, K., and Welton, B., 2012, Integrated Solutions for Hydrologic Investigations in Arid Lands, *Geosphere*, (v8), 1588-1605. (2.120)
- Abouelmagd, A., Sultan, M., **Milewski, A.**, Kehew, A., Sturchio, N., Soliman, F., Krishnamurthy, R.V., Cutrim, E., 2012. Towards a better understanding of Palaeoclimatic regimes that recharged the fossil aquifers in North Africa: Inferences from stable isotope and remote sensing data. *Palaeogeography, Palaeoclimatology, Palaeoecology*, v 329-300, 137-149 pp. (2.390)
- Sultan, M., Metwally, S., **Milewski, A.**, Becker, D., Ahmed, M., Sauck, W., Soliman, F., Sturchio, N., Wagdy, A., Becker, R., Welton, B., 2011, Modern Recharge to Fossil Aquifers: Geochemical, Geophysical, and Modeling Constraints, *Journal of Hydrology*, 403 (1-2), 14-24.
- *Ahmed, M., Sultan, M., Wahr, J., Yan, E., **Milewski, A.**, Sauck, W., Becker, R., and Welton, B., 2011, Integration of GRACE data with Traditional Datasets for a Better Understanding of the Time-dependent Water Partitioning in African Watersheds, *Geology*, 39 (5), 479-482.
- *Sagintayev, Z., Sultan, M., Khan, S.D., Khan, S.A. Mahmood, E., Yan, E., **Milewski, A.**, and Marsala, P., 2011, A Remote Sensing Contribution to Hydrologic Modeling in Arid and Inaccessible Watershed, Pishin Lora Basin, Pakistan, *Hydrologic Processes*, 26 (1), 85-99. (2.50)
- Sultan, M., Yousef, A.F., Metwally, S., Becker R., **Milewski, A.**, Sauck, W., Sturchio, N. C., Mohamed, A.M.M., Wagdy, A., El Alfy, Z., Becker, D., Sagintayev, Z., El Sayed, M., and Welton, B., 2011, Red Sea rifting controls on aquifer distribution: constraints from geophysical, isotopic, and remote sensing data, *Geological Society America Bulletin*, v. 123 (5-6), 911-924. (3.637)
- Sagintayev, Z., Sultan, M., Khan, S.D., Khan, S.A., Mahmood, K., Yan, E., **Milewski, A.**, and Chouinard, K., 2011, Identification of Aquifer Types and Potential Well Locations using GIS and Remote Sensing Technologies in the Pishin Lora Basin, *Geography Bulletin: Kazakh*, v. 1 (32), 117-122. (1.0)
- Kehew, A., **Milewski, A.**, and Soliman, F., 2010, Reconstructing an extreme flood from boulder transport and rainfall-runoff modeling: Wadi Isla, South Sinai, Egypt, *Global and Planetary Change*, v. 70, 64-75.
- Al-Dousari, A., **Milewski, A.**, Ud Din, S., and Ahmed, M., 2010, Remote Sensing Inputs to SWAT Model for Groundwater Recharge Estimates in Kuwait, *Advances in Natural and Applied Sciences*, 4(1), 71-77.
- Milewski, A.**, Sultan, M., Yan, E., Becker, R., Abdeldayem, A.W., and Gelil, K.A., 2009, Remote Sensing Solutions for Estimating Runoff and Recharge in Arid Environments, *Journal of Hydrology*, 373, 1-14.
- Milewski, A.**, Sultan, M., Markondiah Jayaprakash, S., Balekai, R., and Becker, R., 2009, RESDEM, a Tool for Integrating Temporal Remote Sensing Data for use in Hydrogeologic Investigations, *Journal of Computers and Geosciences*, 35, 2001-2010.
- Jones, C., Sultan, M., Yan, E., **Milewski, A.**, Hussein, M., Al-Dousari, A., Al-Kaisy, S., and Becker, R., 2008, Hydrologic Impacts of Engineering Projects on the Tigris-Euphrates System and its Marshlands, *Journal of Hydrology*, 353, 59-75.

- Sultan, M., Sturchio, N., El Sefry, S., **Milewski, A.**, Becker, R., and Nasr, I., 2008, Geochemical, Isotopic, and Remote Sensing Constraints on the Origin and Evolution of the Rub Al Khali Aquifer System, Arabian Peninsula, *Journal of Hydrology*, 356, 70-83.
- Sultan, M., Wagdy, A., Manocha, N., Sauck, W., Abdel Gelil, K., Youssef A.F., Becker, R., **Milewski, A.**, El Alfy, Z., and Jones, C., 2008, An Integrated Approach for Identifying Aquifers in Transcurrent Fault Systems: The Najd Shear System of the Arabian Nubian Shield, *Journal of Hydrology*, 349, 475-488.
- Sultan, M., Yan, E., Sturchio, N., Wagdy, A., Abdel Gelil, K., Manocha, N., Becker, R., and **Milewski, A.**, 2007, Natural Discharge: A Key to Sustainable Utilization of Fossil Groundwater, *Journal of Hydrology*, 335, 25-36.
- Milewski, A.** and Lesht, B.M., Using Satellite Remote Sensing to Determine the Cause of Whiting Events in Lake Michigan, *Journal of Undergraduate Research, US Department of Energy*, Vol. V, 2005.

Book Chapters and Reviews

- Milewski, A.**, 2014, Book review of “*Terrestrial Hydrometeorology*”, James Shuttleworth, 2012, 441pgs, Wiley-Blackwell Press, ISBN 0470659378. *Groundwater*, 52: 337. (2.132).
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