

ITCE – 2014

Peer-reviewed Publications:

- Bataille, C.P., Brennan, S.R., Hartmann, J., Moosdorf, N., Wooller, M.J., Bowen, G.J. (2014) A geostatistical framework for predicting variations in strontium concentrations and isotope ratios in Alaskan rivers. *Chemical Geology* 389:1-15.
- Bowen, G.J., Liu, Z., Vander Zanden, H.B., Zhao, L., Miller, C.C., Lee, H., Takahashi, G. (2014) Geographic assignment with stable isotopes in IsoMAP. *Methods in Ecology and Evolution* 5:201-206
- Bowen, G.J., Good, S.P. (In Press) Incorporating isoscapes in hydrological and water resource investigations. *WIREs Water*
- Good, S.P., Soderberg, K., Guan, K., King, E. G., Scanlon, T., Caylor, K.K. (2014) $\delta^2\text{H}$ Isotopic flux partitioning of evapotranspiration over a grass field following a water pulse and subsequent dry down. *Water Resources Research* 50(1):1410–1432.
- Good, S.P., Kennedy, K.D., Stalker, J.C., Chesson, L.A., Valenzuela, L.O., Beasley, M.M., Ehleringer, J.R., Bowen, G.J. (2014) Patterns of local and nonlocal water resource use across the western U.S. determined via stable isotope intercomparisons. *Water Resources Research* 50(10):8034-8049.
- Good, S.P., Mallia, D.V., Lin, J.C., Bowen, G.J. (2014) Stable Isotope Analysis of Precipitation Samples Obtained via Crowdsourcing Reveals the Spatiotemporal Evolution of Superstorm Sandy. *PLoS ONE* 9(3): e91117.
- Liu, Z., Yoshimura, K., Bowen, G.J., Welker, J.M. (2014) Pacific North American teleconnection controls on precipitation isotopes ($\delta^{18}\text{O}$) across the contiguous United States and adjacent regions: A GCM-based analysis. *Journal of Climate* 27:1046-1061.
- Liu, Z., Yoshimura, K., Bowen, G.J., Buening, N.H., Risi, C., Welker, J.M., Yuan, F. (2014) Paired oxygen isotope records reveal modern North American atmospheric dynamics during the Holocene, *Nature Communications* 5, article 3701.
- Rüegg, J., Gries, C., Bond-Lamberty, B., Bowen, G.J., Felzer, B.S., McIntyre, N.E., Soranno, P.A., Vanderbilt, K.L., Weathers, K.C. (2014) Completing the data life cycle: Using information management in macrosystems ecology research. *Frontiers in Ecology and the Environment* 12:24-30.
- Vander Zanden, H.B., Tucker, A.D., Hart, K.M., Lamont, M.M., Fujisaki, I., Addison, D.S., Mansfield, K.L., Phillips, K., Wunder, M.B., Bowen, G.J., Pajuelo, M., Bolten, A.B., Bjorndal, K.A. (in press) Determining foraging area origin in a migratory marine vertebrate by integrating stable isotope analysis and satellite tracking: a novel approach. *Ecological Applications*.
- Vander Zanden, H.B., Wunder, M.B., Hobson, K.A., Van Wilgenburg, S.L., Wassenaar, L.I., Welker, J.M., Bowen, G.J. (2014) Contrasting assignment of migratory organisms to geographic origins using long-term versus year-specific precipitation isotope maps. *Methods in Ecology and Evolution* 5(9): 891-900
- West, A.G., February, E.C. and Bowen, G.J. (2014) Spatial analysis of hydrogen and oxygen stable isotopes (“isoscapes”) in ground water and tap water across South Africa. *Journal of Geochemical Exploration* 145:213-222.

Book Chapters & Other Publications:

- Good, S.P., Mallia, D.V., Denis, E.H., Freeman, K.H., Feng, X., Li, S., Zegre, N., Lin, J.C., Bowen, G.J. (2014) “High frequency trends in the isotopic composition of superstorm Sandy.” In: Learning from the Impacts of Superstorm Sandy. Edited by Bennington, B. and Farmer, E.C. ISBN-9780128015209 Elsevier, Boston USA
- Good, S.P. and Bowen, G. J. (2014) “Crowd-sourced isotope study of Superstorm Sandy” Piccarro Blog. September 15th, 2014. <http://www.picarro.com/community/blog>

Presentations:

- Bowen G.J. (2014) Fast analysis and flexible networks: How IRIS and citizen science can give us an unprecedented view of hydrological events, CUAHSI/USGS Cyberseminar.
- Good S.P., Noone D., Kurita N., Benetti M. and Bowen G.J. (2014) A Global Mass Balance of Isotope Ratios in Hydrologic Fluxes Provides Constraints on Terrestrial and Oceanic Water Cycling, AGU Fall Meeting.

Gorski G., Good S.P and Bowen G.J. (2014) Fossil Fuel Combustion Fingerprint in High-Resolution Urban Water Vapor Isotope Measurements, AGU Fall Meeting.

Tulley-Cordova C. and Bowen G.J. (2014) Stable isotopes in precipitation, surface, and ground waters: Recording the North American monsoon in Arizona, New Mexico, and Utah, GSA Annual Meeting.

Bowen G.J. (2014) Can modern models predict isotope distributions in the ancient environment?, Coming of Age? Stable Isotopes in Archaeology.

Bowen G.J. (2014) Hydrological connectivity in complex systems: Isotope and isoscape applications to advance understanding and management of water resources in the Anthropocene, University of Wyoming.

Manfreda, S., Caylor, K. K., Good, S.P. (2014) An ecohydrological framework to explain shifts in vegetation organization across climatological gradients, AGU Fall Meeting 2014

Gorski, G., Good, S.P., Bowen, G. J. (2014) Fossil Fuel Combustion Fingerprint in High-Resolution Urban Water Vapor Isotope Measurements, AGU Fall Meeting 2014

Bowen G., Kennedy C., Good, S. P., Ehleringer J. (2014) Isotopic metrics for structure, connectivity, and residence time in urban water supply systems, EGU General Assembly, Vienna, Austria.

Good, S. P., Bowen, G. J. (2014) Stable Isotopes as tools for Investigations of Provenance, Intelligence Community Postdoctoral Research Fellowship Colloquium. Institute for Peace, Washington DC.

Bowen, G. J., Good, S. P. (2014) Fast Analysis and Flexible Networks: IRIS and Citizen Science Give an Unprecedented View of Hydrological Events, Consortium of Universities for the Advancement of Hydrologic Sciences Incorporated - Laster Spectroscopy Virtual Work

Vander Zanden, H.B., Wunder, M.B., Hobson, K.A., Van Wilgenberg, S.L., Wassenaar, L.I., Welker, J.M., Bowen, G.J. (2014) Do year-specific precipitation isoscapes improve predictions of migratory origin? American Ornithologists' Union, Cooper Ornithological Society, and the Society of Canadian Ornithologists, Estes Park, CO

Vander Zanden, H.B., Wunder, M.B., Hobson, K.A., Van Wilgenberg, S.L., Wassenaar, L.I., Welker, J.M., Bowen, G.J. (2014) Which water matters: how spatiotemporal characteristics of precipitation isoscapes affect geographic assignments to origin for migratory species. International Conference on Applications of Stable Isotope Techniques to Ecological Studies, Perth, Australia.

Vander Zanden, H.B., Tucker, A.D., Hart, K.M., Lamont, M.M., Fujisaki, I., Addison, D.S., Mansfield, K.L., Phillips, K., Wunder, M.B., Bowen, G.J., Pajuelo, M., Bolten, A.B., Bjorndal, K.A. (2014) Determining foraging area origin with stable isotope analysis and satellite tracking for loggerheads nesting in the Gulf of Mexico. International Symposium on Sea Turtle Biology and Conservation, New Orleans, LA.