

Jason B. West Curriculum Vita

1. PERSONAL INFORMATION

Jason B. West
Associate Professor
Ecology & Conservation Biology
Texas A&M University
College Station, TX 77845
Phone: (979) 845-3772
Email: jbwest@tamu.edu

2. EDUCATION

Ph.D. 2002, University of Georgia, Athens, Georgia
B.S. 1996, Utah State University, Logan, Utah

3. PROFESSIONAL EXPERIENCE

Associate Professor, 2014 – present

- Department of Ecology and Conservation Biology (2020-present), Texas A&M University
- Department of Ecosystem Science and Management (2014-2019), Texas A&M University
- Co-Director of the Stable Isotopes for Biosphere Science Laboratory
- Interdisciplinary Faculty Membership:
 - Ecology and Evolutionary Biology (2008 – present)
 - Molecular & Environmental Plant Sciences (2011 – present)
 - Forensic and Investigative Sciences Program (2011 – present)

Visiting Scientist, 2015-2016
l'Institut National de la Recherche Agronomique (INRA), Bordeaux-Aquitaine

Assistant Professor, 2008–2014
Department of Ecosystem Science and Management, Texas A&M University

Research Assistant Professor/Associate, 2004–2008
Department of Biology, University of Utah

Postdoctoral Fellow, 2002–2004
Department of Ecology, Evolution, and Behavior, University of Minnesota

4. AWARDS AND RECOGNITION

2018 Excellence in Discovery / Innovation Award
Department of Ecosystem Science & Management, Texas A&M University

2015 Fulbright Scholar
Visiting Scientist post at INRA Bordeaux-Aquitaine, France

2013 **Gail W. and David P. Marion '65 Teaching Award**
College of Agriculture and Life Sciences, Texas A&M University

5. INVITED PRESENTATIONS (last 10 years)

13. Invited research seminar and short course, Brasilia, Brazil (2020; *postponed*), Department of Ecology, Biological Sciences Institute, University of Brasilia
12. Invited Plenary, Forensic Isotope Ratio Mass Spectrometry Conference, Trentino, Italy (2019), The use of spatial isotope data in a forensic context
11. Kansas State University Division of Biology Seminar Series, Manhattan, Kansas (2019), The importance of the belowground to dryland ecosystem responses to change
10. Texas A&M University Geobiology Mass Spectrometry Lecture Series (2017), Frontiers in the use of stable isotopes to study plant-atmosphere interactions
9. University of Basel, Basel Switzerland (2016), Using stable isotopes to peer into leaves for answers to global-scale questions
8. University of Bristol, Bristol, UK (2015), Charting a multidisciplinary odyssey with isoscapes
7. Institut National de la Recherche Agronomique (INRA), Bordeaux, France (2015) Extending models of stable isotope fractionation in plants across disciplines and spatiotemporal scales with isoscapes
6. Cornell University, Ithaca (2012), Tracing the role of vegetation in water flux pathways with the isotope record
5. International Congress on Natural Products Research, New York, NY (2012), Botanical isoscapes: emerging stable isotope tools for geographic sourcing and authentication
4. Department of Ecosystem Science and Management, Texas A&M University (2011), New tools and insights in the interactions between vegetation and hydrologic processes
3. Department of Geology 5050 Seminar Series, Baylor University (2011), Ecohydrological insights across scales, from plant water sources to global isoscapes
2. Distinguished Lecture Series, Water Resources Program, Texas A&M University (2010), Ecohydrology under changing climate
1. Goldschmidt Conference, Knoxville, TN, (2010), session title: Bridging isotope effects in cellular metabolism to environmental scale tracer studies

6. RESEARCH PROGRAM

Summary of research products

Type	Since last promotion	Career to date
Refereed journal articles	20	48
Edited books	0	1
Textbooks	1	1
Book chapters	3	10
Technical reports, published abstracts, etc.	2	7

Summary of research funding

Type	Since last promotion		Career to date	
	Total	To West	Total	To West
External	\$10,494,325	\$319,643	\$30,442,758	\$677,823
Internal	\$1,562,082	\$733,179	\$4,142,070	\$954,199
Other (e.g., contracts)	--	--	\$310,892	\$245,392
Overall Total	\$12,056,407	\$1,052,822	\$34,895,720	\$1,877,413

Current funding

4. **United States Department of Agriculture, Agriculture and Food Research Initiative (USDA/AFRI)**, 2019-2024. Wilcox, BP and 5 co-PDs (West is one of 20 additional Senior Personnel and identified as a co-Investigator). Enhancing Livestock Production from Rangelands in the Great Plains. \$9,994,340. *External competitive grant*.
3. **United States Department of Agriculture, Agriculture and Food Research Initiative (USDA/AFRI)**, 2019-2022. Loopstra, CA, JB West, C Casola. Integrating genomic data and physiological measurements to identify fast-growing, drought-tolerant loblolly pine varieties. \$499,985. *External competitive grant*.
2. **Texas A&M University, Dept. of ESSM - Savanna Long Term Research and Education Initiative (SLTREI)**, 2017-2020. JB West. Savanna carbon cycle responses to climate and anthropogenic change. \$227,783. *Internal non-competitive grant*
1. **Texas A&M Triads for Transformation (T3)**, 2018-2020. West, JB, B Roark, J Loisel. Tracing biological processes across scales with compound-specific isotope analysis (CSIA). \$30,000. *Internal non-competitive grant*

Previous funding

16. **Texas A&M University, Dept. of ESSM**, 2019. JB West. Funds for the purchase of a UV-Vis spectrophotometer. \$18,752. *Internal non-competitive grant*
15. **Texas A&M University - CAPES Collaborative Research Grant Program**, 2014-2019. Wilcox, B, J West. The influence of land use on the ecohydrology and biogeochemistry of the Brazilian Caatinga. \$50,000. *Internal competitive grant*.
14. **Texas A&M University, Dept. of ESSM - Savanna Long Term Research and Education Initiative (SLTREI)**, 2018. JB West. Funds for the purchase of meteorological and eddy flux instrumentation. \$144,300. *Internal non-competitive grant*
13. **Chancellors Research Initiative**, 2016-2017. Grossman, EL, T Boutton, B Roark, N Slowey, J West. Stable isotope partnership for ecology, environment, and energy research. \$1,042,929. *Internal competitive grant*
12. **Texas A&M University, Dept. of ESSM - Savanna Long Term Research and Education Initiative (SLTREI)**, 2017. JB West. Funds for the purchase of a gas exchange system. \$64,570. *Internal non-competitive grant*
11. **United States Department of Agriculture, Agriculture and Food Research Initiative**. 2011-2016. Martin, TA and the PINEMAP team (55 Co-PIs including West) PINEMAP: Integrating research, education and extension for enhancing southern pine climate change mitigation and adaptation, \$19,100,000. *External competitive grant*.
10. **Fulbright Commission**, 2015-2016. West, JB. Research Scholar. 23,400€. *External competitive fellowship* (not included in summary table)
9. **Texas A&M AgriLife Research Air Quality Seed Grant Program**, Texas A&M University System. 2013-2015. West, J, T Boutton. Identifying sources of N₂O production in agroecosystems, \$132,960. *Internal competitive grant*
8. **Wintergarden Groundwater Conservation District**. 2013-2014. West, JB, WE Rogers, R Lyons. Effects of brush removal on distributed recharge of the Carrizo-Wilcox aquifer: Continuing treatment response investigation, \$101,485. *External contract*
7. **Initiative for Digital Humanities, Media, and Culture**, Texas A&M University. 2013. West, JB and RK Garcia. IDHMC Collaboration grant, \$1,000. *Internal Competitive grant*

6. **Wintergarden Groundwater Conservation District.** 2010-2012. West, JB, WE Rogers, R Lyons. Effects of brush removal on distributed recharge of the Carrizo-Wilcox aquifer, \$209,407. *External contract*
5. **United States Geological Survey/Texas Water Resources Institute.** 2011-2012. Mattox, A, JB West. Effects of woody vegetation removal on groundwater recharge in the Carrizo-Wilcox aquifer, \$5,000. *Internal competitive grant*
4. **National Science Foundation,** Division of Biological Infrastructure. 2008-2012. Bowen, GJ, CC Miller, JB West, T Zhang, L Zhao. Enabling end-to-end geospatial data modeling workflows via INPort: The Isotope Networks Portal, \$831,573 (DBI: #0743543). *External competitive grant*
3. **United States Department of Agriculture,** National Institute of Food and Agriculture, Federal Initiative, 2009-2012. Harris, B and 29 co-PIs including West. Efficient Irrigation for Water Conservation in the Rio Grande Basin, \$2,161,028 (total for 2009 & 2010). *Internal competitive grant*
2. **Texas AgriLife Research Cropping Systems Program (State Initiative),** Texas A&M University System. 2009-2011. Rowland, DL, TDA Forbes, FM Rouquette Jr, GR Smith, JB West. Enhancement of water conservation and nitrogen efficiency through legume-based cropping systems, \$280,000. *Internal competitive grant*
1. **National Science Foundation,** 2000-2002. Doctoral Dissertation Improvement Grant, Donovan, LA and JB West. Redundancy of belowground ecosystem function among native C₄ perennial bunchgrass species of *Pinus palustris* savannas. \$16,860. *External competitive grant*

7. TEACHING PROGRAM

Summary of graduate student mentoring

	Ph.D. total (completed)	M.S. total (completed)	Total (completed)
Chair or co-chair	3 (2)	7 (6)	10 (8)
Committees (internal)	13 (9)	6 (4)	19 (13)
Committees (external)	0	2 (2)	2 (2)
Total	16 (11)	15 (12)	31 (23)

Graduate student committees chaired or co-chaired

Current students (1 PhD, 1MS)

Nicole Havrilchak (PhD, ESSM)

Dissertation title: *Physiological ecology of semi-arid savanna grasses*

Harrison Raub (MS, ESSM)

Thesis title: *Scaling plant physiological processes from leaf to canopy using spectral reflectances*

Former students (2 PhD, 6 MS)

Rachel Adams (PhD, ESSM, also co-advised by Tom Illiffe, 2020)

Dissertation title: *Lithologic and biological controls of deep rooting by trees in seasonally dry tropical forests*

Cynthia Wright (PhD, ESSM, also co-advised by Brad Wilcox, 2020)

Dissertation title: *Biogeochemical responses of Caatinga ecosystems to recovery from woody plant harvests and livestock grazing*

Yang Zhang (MS, ESSM, also co-advised by Jason Vogel, 2016), *Mechanisms of soil respiration response to drought in Pinus taeda plantations*

Elizabeth Wilson (MS, ESSM, also co-advised by Jason Vogel, 2014), *Scaling leaf-level physiology to field assessments of drought tolerance in Pinus taeda*

April Mattox (MS, ESSM, 2013), *The effect of land management on potential distributed recharge of the Carrizo-Wilcox aquifer*

Li Fan (MS, RLEM, also co-advised by Georgianne Moore, 2012), *Effects of Arundo donax L on the Hydrology of a Rio Grande Riparian Zone*

Kui Li (MS, RLEM, also co-advised by Georgianne Moore, 2011), *Ecohydrological controls and effects of rhizome integration on the performance of Arundo donax in a Rio Grande riparian zone*

Graduate Committees, Texas A&M University

Summary of student committees

Student	Degree	Date completed
<i>Current</i>		
Miriam Catalan	Ph.D., Eco. Sci. & Mgt.	enrolled
Quoc Nguyen	Ph.D., Entomology	enrolled
Baoxin Chang	Ph.D., Soil & Crop Sciences	enrolled
Zack Gorman	Ph.D., Plant Pathology	enrolled
Kate Von Ness	M.S., Geography	enrolled
Daianne Höfig	M.S., Oceanography	enrolled
<i>Completed</i>		
Jeff Martin	Ph.D., Wildlife & Fisheries	Spring 2020
Xiangmin Sun	Ph.D., Eco. Sci. & Mgt.	Fall 2019
Dorothy Menfee	Ph.D., Soil & Crop Sciences	Fall 2019
Yong Zhou	Ph.D., Eco. Sci. & Mgt.	Spring 2018
Ryan Mushinski	Ph.D., Eco. Sci. & Mgt.	Spring 2017
Nicole Bisang	Ph.D., Entomology	Spring 2016
Alexander Van Plantinga	Ph.D., Geology	Fall 2015
Ricardo Colón-Rivera	Ph.D., Eco. Sci. & Mgt.	Summer 2013
Carissa Wonkka	Ph.D., Eco. Sci. & Mgt.	Fall 2014
Paige Graves	M.S., Horticulture	Fall 2014
Reagan Heijl	M.S., Agronomy	Spring 2014
Young-Tae Choi	M.S., Forestry	Spring 2012
Andrew Jackson	M.S., Wildlife and Fisheries	Summer 2012

Graduate advising, international (3 total, 1 Ph.D., 2 M.S.)

Summary of international advising or evaluation

Student	Degree	University	Date completed
Primary advisor			
Yann Cochet	MS-2 recherche, Earth, Ecology, and Environment	Université de Bordeaux	Summer 2016

External evaluator

Kirsten Retief	M.S., Conservation Biology Advisor: Dr. Adam West	Dept. of Biological Sciences, University of Cape Town	Spring 2014
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Committee member

Ane Fortes	Ph.D., Forest Ecology	Universidade Rural de Pernambuco	Spring 2020
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Postdoctoral scholars

Dr. Aline Jaimes-Hernandez (2018-2019)
Savanna ecosystem C and water fluxes

Dr. Saadat U. Malghani (2015-2016)
Isotopomers of N₂O fluxes from forest and grassland soils

Dr. M. Shahadat Hossain (2009-2010)
Spatial modeling of plant stable isotope ratio variation

Visiting scholars and students

Ane Fortes (2018-2019) PhD student, Universidade Federal Rural de Pernambuco
Photogrammetric and allometric scaling of savanna carbon

Amani Mahindawansha (2017) PhD student, Justus Liebig University Giessen
Modelling the soil evaporation isoscapes as a functional indicator to calculate the effect for water budget of rice fields in Southeast Asia

Prof. Fernando José Freire (2015-2016) Universidade Federal Rural de Pernambuco
Plant-soil interactions across gradients of agronomic intensity in the Caatinga
CAPES-TAMU faculty exchange program

Kennedy Nascimento de Jesus (2015) PhD student, Universidade Federal de Pernambuco
Soil C and N isotope ratios variation across disturbance and soil types in Caatinga
Brazilian graduate student "sandwich" program

Iris van der Veen (2015) PhD student, Potsdam University
A leaf water isoscape for the Himalayan region
SPATIAL course research-in-residence

Monica Warner (2015) PhD student, Mississippi State University
Testing modern isoscapes using archaeological human enamel from Río Talgua, Honduras
SPATIAL course research-in-residence

Cristina Antunes (2015) PhD student, University of Lisbon and University of Campinas
Groundwater stress indicators in coastal dune forests: from Tropics to Mediterranean
SPATIAL course research-in-residence

Undergraduate student mentoring (internships / independent research)

Dillon See (Texas A&M University) Summer 2019. Sid Kyle project summer intern

Scott McConaghy (Kansas State University) Summer 2013. PINEMAP summer intern

Madison Wigley (Texas A&M University) Summer 2013. PINEMAP summer intern

Emery Wolf (Texas A&M University) Summer 2013. Undergraduate Research Scholar

Brandon Cawthon (Texas A&M University) Spring 2012-2013. Groundwater recharge

Jenny King (Texas A&M University) Fall 2012. Forensic isotope internship

Chronology and student evaluation of classroom teaching

Summary of courses taught

Course	Title	Credit hours	When taught	Students enrolled	Evaluation (5.0 scale)*
<i>Undergraduate</i>					
RENr 215	Fundamentals of Ecology Laboratory	1	Fall 2011	190	N/A
			Fall 2012	192	N/A
			Fall 2013	193	N/A
			Fall 2014	194	N/A
			Fall 2016	190	N/A
			Fall 2017	250	N/A
			Fall 2018	251	N/A
			Fall 2019	246	N/A
ESSM 311	Biogeochemistry and Global Change	3	Spring 2013	44	4.07
			Spring 2014	35	4.70
			Spring 2015	25	4.35
			Spring 2017	22	4.67
			Fall 2018	26	4.71
			Fall 2019	22	3.91‡
<i>Graduate</i>					
ESSM 685	Ecophysiology Readings	2	Fall 2016	5	N/A
EEBL 601	Physiological Ecology	1	Fall 2016	12	N/A
			Fall 2017	8	N/A
			Fall 2018	12	N/A
ESSM 689	Stable Isotope Ecology	1	Spring 2011	20	4.27
			Isotopes in the Biological Sciences	2	Spring 2013
ESSM 621	Plant Physiological Ecology	3	Fall 2011	10	4.47
			Fall 2012	6	4.63
			Fall 2013	6	4.52
			Fall 2017	8	4.68
			Fall 2018	11	4.48
RENr 681	Department Seminar	1	Spring 2011	13	4.89

*Departmental (ESSM) averages based on end-of-semester written evaluations as well as online (PICA) evaluations for Fall and Spring 2013-2018 are as follows: 4.48 (overall), 4.43 (all undergraduate courses), 4.47 (undergraduate lower level), 4.42 (undergraduate upper level), 4.60 (graduate).

‡Evaluations were changed to online-only this year, lowering the response rate to only 27%.

Other teaching contributions, international and domestic

Invited instructor for Isotopes in Spatial Ecology and Biogeochemistry (SPATIAL Short Course)

University of Utah, 2013-present (<http://itce.utah.edu>)

Invited instructor for Isoscapes summer school, Fondazione Edmund Mach, 2017

Invited Presentations, Texas A&M University

ESSM Graduate Student Association R Workshop, 2018

Involving and Engaging Students Using iPads, CTE Faculty Workshops, Spring 2014

PHIL 361: Metaphysics, Spring 2014

FIVS 481: Seminar in Forensic and Investigative Sciences, Spring 2012

GEOL 648: Stable Isotope Geology, Fall 2010

IDP Course Development, Texas A&M University

EEBX601: Physiological Ecology, part of the core sequence in the EEB PhD program

8. SERVICE PROGRAM

External Service

Professional society leadership

Chair, Physiological Ecology Section, Ecological Society of America (2017-2019)

Secretary, Physiological Ecology Section, Ecological Society of America (2012-2013)

External advisory boards

Terrestrial Biogeochemistry Working Group, National Ecological Observatory Network (2017-present)

Journal editorships

Subject Editor - *Ecosphere* (2013 - present)

Editorial Board - *PeerJ* (2017 - 2019)

Associate Editor - *Plant Ecology* (2014 - 2016)

Special issue guest editorships

Ecosphere (2013) "Isoscapes in ecology: integrating across scales with the isotopic record"

Journal of Geochemical Exploration (2009) "Isoscapes 2008: Isotope Mapping and its Applications"

Grant review panels

National Science Foundation (2010, 2012, 2013, 2014, 2015, 2017, 2019)

Grant reviewer (ad hoc)

National Geographic Society (2016)

National Science Foundation (2011, 2016, 2017, 2018)

Department of Justice, National Institute of Justice (2011)

United States Department of Agriculture (2011)

National Sciences and Engineering Research Council of Canada (2009)

Kearney Foundation of Soil Science (2007)

Professional society participation

Member: American Association for the Advancement of Science, American Geophysical Union, Ecological Society of America

Judge for Physiological Ecology section of the Ecological Society of America graduate student presentations (multiple years)

National and international delegations and workshops organized

Lead organizer of a workshop on “Stable isotopes in NEON” held in Boulder, CO January 6-8, 2014. The workshop included 15 invited scientists interested in research that may capitalize on NEON data products.

Co-convenor of a Special Session at the American Geophysical Union Fall 2012 Meeting: “Chemical Indicators of Pathways in the Water Cycle”

Co-organizer of an international multi-disciplinary meeting “Isoscapes 2011.” This meeting was funded by the National Science Foundation (DBI grant #0743543, see above) and served as a follow-up to Isoscapes 2008, as well as a workshop for the project web portal and modeling platform IsoMAP (<http://isomap.org>)

Co-organizer of an international multi-disciplinary meeting “Isoscapes 2008: Isotope mapping and its applications” (<http://isoscapes2008.org>) funded by the National Science Foundation Research Coordination Networks “Biogeosphere-Atmosphere Stable Isotope Network (BASIN)” and “Migration Interest Group: Research Applied Toward Education (MIGRATE),” April 8-10, 2008

Co-organizer of a special session in The 6th International Conference on Applications of Stable Isotope Techniques to Ecological Studies (ISOECOL) on “Isotope Mapping to Address Ecological Questions,” August 25-29, 2008

Co-organizer of American Geophysical Union organized session “Insights on Human Impacts on the Environment from Spatial Variation in Stable Isotope Ratios,” with support from the Biogeosphere-Atmosphere Stable Isotope Network (BASIN; NSF Research Coordination Network), December 11, 2006

Co-author of response to the Request for Information from the National Ecological Observatory Network (NEON): Williams, D, RD Evans, JB West, JR Ehleringer. 2007. Isotope Network of Ecological Warning Signals (INEWS)

Journal Reviewer (selected list from 37 journals to date)

Agricultural and Forest Meteorology, Biogeosciences, Ecological Applications, Ecology, Ecology Letters, Functional Ecology, Geophysical Research Letters, Global Biogeochemical Cycles, Global Change Biology, Journal of Ecology, Hydrology and Earth System Sciences, JGR – Atmospheres, JGR – Biogeosciences, Nature Scientific Reports, Oecologia, Organic Geochemistry, Plant and Soil, Proceedings of the National Academy of Sciences, Rapid Communications in Mass Spectrometry, Tree Physiology, Water Resources Research

Texas A&M University service

Invited Public Lecture, Department of Chemistry (2017)

Isoscapes: The spatial fingerprints of biology on Earth's chemistry (First Year Chemistry Program, ~2,000 student attendees)

Department of Ecosystem Science and Management

Member of Tenure & Promotion Committee (2015 – present)

Member of Graduate Studies Committee (2011 – present)

Chair of Sid Kyle Research Facilities Committee (2015)

Member of Faculty Search Committees:

Assistant Professor – Plant Systematics (2018)

Assistant/Associate Professor – Forest Biology (2016)

Assistant Professor – Spatial Sciences (2012 – 2013)

Assistant Professor – Environmental Modeling (2012-2013; *search postponed*)

Member of Department Head Search Process Committee (2012)

Member of Awards and Recognition Committee (2012 – 2013)

Member of Social Committee (2012 – 2013)

Member of SRM Alumni Reception Committee (2012 – 2013)

Texas A&M AgriLife Research

Judge for Texas A&M AgriLife Conference Graduate Student Research Poster Competition (2010)

Member of search committee for Assistant Professor of Environmental Soil Chemistry, Texas AgriLife Research, Overton, Texas A&M University System (2009; *search postponed*)

Member of search committee for Assistant/Associate Professor of Agronomy, Texas AgriLife Research, Uvalde, Texas A&M University System (2008)

Texas A&M Graduate and Professional Studies

Reviewer, Merit Graduate Fellowship Applications 2014

Texas A&M Molecular and Environmental Plant Sciences IDP

Member of the Executive Committee 2012-2015

Chair of the 2014 Symposium Committee

Chair of the 2012 Symposium Committee (symposium canceled due to lack of funding)

Texas A&M Ecology and Evolutionary Biology IRP

Contributed to EEBX601 Physiological Ecology Core Course Syllabus in IDP proposal

9. RESEARCH OUTPUT

Refereed journal articles

**Chaired graduate student, #Other graduate student*

In review (3)

3. #Sun, X, B.P. Wilcox, C.B. Zou, E. Stebler, **J.B. West**, B.M. Wyatt. *in review*. Isotopic partitioning of evapotranspiration in a mesic grassland during two wetting-drying episodes. *Agricultural and Forest Meteorology*
2. Loisel, J., Gallego-Sala, A.V., Amesbury, M.J., Magnan, G., Anshari, G., Beilman, D., Benavides, J.C., Blewett, J., Camill, P., Charman, D.J., Chawchai, S., Hedgpeth, A., Kleinen, T., Korhola, A., Large, D., Mansilla, C.A., Müller, J., van Bellen, S., **West, J.B.**, Yu, Z., Bubier, J., Garneau, M., Moore, T., Sannel, A.B.K., Page, S., Väliiranta, M., Bechtold, M., Brovkin, V., Cole, L.E.S., Chanton, J.P., Christensen, T.R., Davies, M.A., De Vleeschouwer, F., Finkelstein, S.A., Frolking, S., Gałka, M., Gandois, L., Girkin, N., Harris, L., Heinemeyer, A., Hoyt, A.M., Jones, M.C., Joos, F., Juutinen, S., Kaiser, K., Lacourse, T., Lamentowicz, M., Larmola, T., Leifeld, J., Lohila, A., Milner, A., Minkinen, K., Morris, P., Moss, P., Naafs, B.D.A., Nichols, J., O'Donnell, J., Payne, R., Philben, M., Quillet, A., Ratnayake, A.S., Roland, T., Sjoogersten, S., Sonnentag, O., Swindles, G.T., Swinnen, W., Talbot, J., Treat, C., Valach, A.C., Wu, J., Piilo

S. *in review*. Expert assessment of future vulnerability of the global peatland carbon sink. Nature Climate Change

1. #Menefee, DS, S Cui, M Bagavathiannan, R Schnell, **J West**. *in review*. Carbon exchange of a dryland cotton field and its relationship with PlanetScope remote sensing data. Agricultural and Forest Meteorology

Published (48)

48. #Chang, B, Wherley, J, Aitkenhead-Peterson, and **J.B. West**. *in press*. Water Chemistry and Nitrogen Source Affect Foliar Uptake Efficiency in 'Champion' Bermudagrass. J. Plant Nutrition
47. #Lin, W, J-C Domec, EJ Ward, J Marshall, JS King, MA Laviner, TR Fox, **JB West**, G Sun, S McNulty, A Noormets. 2019. Using $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ to analyze loblolly pine (*Pinus taeda* L.) response to experimental drought and fertilization. Tree Physiology, 39(12):1984–1994.
46. #Chang, B, BG Wherley, J Aitkenhead-Peterson, **JB West**. 2019. Irrigation Salinity Effects on Tifway Bermudagrass Growth and Nitrogen Uptake. Crop Science, 59:2820–2828.
45. *Adams RE, Iliffe TM, West JB. 2019. Identifying tree roots in the caves of Quintana Roo, Mexico as a step toward ecological insights and improved conservation. Plants, People, Planet, doi:org/10.1002/ppp3.10079.
44. *Adams, R, A Hyodo, T SantaMaria, C Wright, T Boutton, **J West**. 2019. Bound and mobile soil water isotope ratios are affected by soil texture and mineralogy while extraction method influences their measurement. Hydrological Processes, doi:10.1002/hyp.13633.
43. Fiorella, RP, **JB West**, GJ Bowen. 2019. Biased estimates of the isotope ratios of steady-state evaporation from the assumption of equilibrium between vapor and precipitation. Hydrological Processes, 33:2576–2590.
42. Hyodo, A, S Malghani, #Y Zhou, #RM Mushinski, S Toyoda, N Yoshida, TW Boutton, **JB West**. 2019. Biochar amendment suppresses N_2O emissions but has no impact on ^{15}N site preference in an anaerobic soil. Rapid Communications in Mass Spectrometry, 33:165-175.
41. dos Santos, RL, Freire, FJ, Almeida de Oliveira, EC, Galvao dos Santos Freire, MB, **West, JB**, Barbosa, J, Alves de Moura, MJ, & Bezerra, P 2019. Nitrate Reductase Activity and Nitrogen and Biomass Accumulation in Sugarcane under Molybdenum and Nitrogen Fertilization. Revista Brasileira de Ciencia do Solo, 43:e0180171.
40. #Antunes, C, S Chozas, **J West**, M Zunzunegui, M Cruz Diaz Barradas, S Vieira, C Máguas. 2018. Groundwater lowering drives ecophysiological adjustments of woody vegetation in a semi-arid coastal ecosystem. Global Change Biology, 24:4894-4908.
39. Chesson, LA, JE Barnette, GJ Bowen, JR Brooks, JF Casale, TE Cerling, CS Cook, CB Douthitt, JD Howa, JM Hurley, HW Kreuzer, MJ Lott, LA Martinelli, SP O'Grady, DW Podlesak, BJ Tipple, LO Valenzuela, **JB West**. 2018. Applying the principles of isotope analysis in plant and animal ecology to forensic science in the Americas. Oecologia, 187(4):1077-1094.
38. #Filho, RA, MB Freire, B Wilcox, **J West**, F Freire, F Marques. 2017. Recovery of carbon stocks in deforested Caatinga dry forest soils requires at least 60 years. Forest Ecology and Management, 407(1):210-220.
37. Gimeno, TE, J Ogée, J Royles, Y Gibon, **JB West**, R Burlett, SP Jones, J Sauze, S Wohl, C Benard, B Genty and L Wingate. 2017. Bryophyte gas-exchange dynamics along varying hydration status reveal a significant CO_2 sink in the dark and CO_2 source in the light. New Phytologist, 215(3):965-976.

36. †Lu, M, K Krutovsky, CD Nelson, **JB West**, N Reilly, CA Loopstra. 2017. Association genetics of growth and adaptive traits in loblolly pine (*Pinus taeda* L.) using whole exome-discovered polymorphisms. Tree Genetics and Genomes, 13:57.
35. †Wonkka, CL, **JB West**, D Twidwell, WE Rogers. 2017. Grass mortality and turnover following core rangeland restoration practices. Rangeland Ecology and Management, 70(3):290-300.
34. *Zhang, Y, JG Vogel, C Meek, R Will, D Wilson, **JB West**. 2016. Wood decomposition by microbes and macroinvertebrates, and soil CO₂ efflux vary in response to throughfall reduction and fertilization in a loblolly pine (*Pinus taeda* L.) plantation. Forest Ecology and Management, 382:10-20.
33. Cerling, TE, JE Barnette, GJ Bowen, LA Chesson, JR Ehleringer, CH Remien, P Shea, BJ Tipple, **JB West**. 2016. Stable isotope forensic biogeochemistry. Annual Review of Earth and Planetary Sciences, 44:175-206.
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7.2 Other scientific presentations

Invited presentations (14)

14. Invited keynote - 15th CF-IRMS Workshop, Cornell University (2009) The emergence of isoscapes as tools for studying large-scale processes
13. University of Texas, San Antonio (2008) Ecosystem ecology in a dynamic world
12. Texas A&M University, College Station (2008) Terrestrial ecosystem function and response to change across scales
11. Texas AgriLife Research, Uvalde (2008) Terrestrial ecosystem function and response to change across scales
10. Eastern Nevada Landscape Coalition, Ely (2007) Global change and the ecosystems of the Great Basin
9. University of California, Davis (2007) Biogeochemical insights from spatially explicit stable isotope ratio modeling

8. University of Utah, Salt Lake City (2006) Geographic Information Systems and relational databases as tools for large scale exploration in Biology
7. Pacific Northwest National Laboratory, Richland (2005) Ricin geolocation by global spatial modeling of Castor Bean stable isotope ratios
6. University of New Mexico, Albuquerque (2005) Plant Isotope landscapes: IsoScapes
5. Gustavus Adolphus College, St. Peter (2004) Global change effects on belowground ecosystem function
4. Centre d'Ecologie Fonctionnelle et Evolutive, Montpellier (2003) Evidence for a negative productivity feedback underlying ecosystem response to diversity and N deposition
3. La Selva Biological Station, Costa Rica (2003) Linking plant traits, global change and nitrogen cycling
2. University of Minnesota, St. Paul (2003) Peering into the belowground worlds of the Carolina Sandhills and Minnesota prairies
1. University of North Carolina, Asheville (2001) Divergent nitrogen cycling influences of longleaf pine savanna bunchgrasses

Conference presentation abstracts (86); *Chaired or co-chaired graduate student, †Other graduate student)

86. National Association of Plant Breeders (2019) Loopstra, C, C Casola, **J West**. NIFA: Integrating genomic data and physiological measurements to identify fast growing, drought-tolerant loblolly pine varieties
85. *Ecological Society of America (2019) Adams, RE, **JB West**. Water and nutrient acquisition strategies vary as a function of site and species in tropical subhumid forests
84. †Ecological Society of America (2019) da Silva, ACF, FJ Freire, N Havrilchak, N-W Ku, PAM Leite, L Malambo, S Popescu, H Raub, T SantaMaria, **JB West**. Development of non-destructive methods for estimating effects of woody plant encroachment in Texas savannas using allometry and remote sensing
83. †Southern Forest Tree Improvement Conference (2019) Li, J, **J West**, C Loopstra, C Casola. Extensive clonal variation in drought-induced gene expression changes in loblolly pine
82. *American Geophysical Union (2018) Adams, RE, A Hyodo, CL Wright, T SantaMaria, TW Boutton, **JB West**. Assessing the impacts of clay content and extraction method on bound and mobile soil water pools
81. *American Geophysical Union (2018) Adams, RE, FA Jones, **JB West**. The hidden half: exploring below ground biodiversity and function of deep roots in a dry tropical forest
80. *American Geophysical Union (2018) Wright, C, E Souza, ACD Antonio, **J West**, B Wilcox. When to hold 'em and when to fold 'em: divergent plant water use of woody species in the Caatinga dry forest of Brazil
79. American Geophysical Union (2018) Fiorella, RP, **JB West**, A Putman, Z Cai, GJ Bowen. Can the global closure assumption be applied locally?
78. *RIO18 21st World Congress of Soil Science (2018) Wright, C, E Souza, E Soares, **J West**, B Wilcox. Does land use / land cover change the spatio-temporal nature of soil water? A multi-spectral analysis in the Caatinga
77. *Ecological Society of America Annual Meeting (2018) Adams, RE, **JB West**, FA Jones. The hidden half: Exploring below ground biodiversity and function of deep roots in a dry tropical forest

76. Ecological Society of America Annual Meeting (2017) **West, JB**, J Ogee, R Burlett, T Gimeno, B Genty, S Jones, S Wohl, A Bosc, Y Cochet, JC Domec, L Wingate. Partitioning internal diffusion resistances and CO₂ isotope exchange in leaves
75. Ecological Integration Symposium (2017) †Li, J, **J West**, C Loopstra, T Byram, J-C Domec, J Puryear, M Smith, C Casola. Drought-induced gene expression changes in tissues of Loblolly Pine clones
74. Grassland Society of Southern Africa Annual Congress (2017) Wilcox, B., S. Fuhlendorf, S. Archer, T. Boutton, J. West, P. Barboza, B. Rogers, A. Birt, B. Wu, U. Kreuter, K. Kavanagh, D. Tolleson, and J. Walker. Savanna Long-term Research Initiative in the Southern Great Plains
73. *American Geophysical Union Chapman Conference on Emerging Issues in Tropical Ecohydrology (2016) Wright C, E Souza, JR Lima, **J West**, B Wilcox. Does a forested caatinga hold more water?
72. American Geophysical Union Fall Meeting (2016) West, J, J Ogée, R Burlett, T Gimeno, B Genty, S Jones, S Wohl, A Bosc, Y Cochet, J-C Domec, L Wingate. Towards improved quantification of internal diffusion resistances and CO₂ isotope exchange in leaves
71. †American Geophysical Union Fall Meeting (2016) †Sun, X, BP Wilcox, C Zou, E Stebler, Jason West. Control study on Evapotranspiration partitioning for grassland through in-situ isotopic measurement
70. 17th International Congress on Photosynthesis Research (2016) Gimeno, TE, J Royles, J Ogée, S Jones, R Burlett, **J West**, J Sauze, S Wohl, B Genty, H Griffiths, L Wingate. Bryophyte gas-exchange dynamics along varying hydration status reveal significant COS emission in the light
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68. European Geophysical Union General Assembly (2016) Gimeno T, J Royles, J Ogée, S Jones, R Burlett, **J West**, J Sauze, S Wohl, B Genty, H Griffiths, L Wingate. Investigating the impact of light and water status on the exchange of COS, 13CO₂, CO₁₈O and H₂¹⁸O from bryophytes
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66. †American Geophysical Union Fall Meeting (2015) Wright, C, BP Wilcox, E Souza, J Lima, **JB West**. Modeling soil water in the Caatinga tropical dry forest of northeastern Brazil
65. †American Geophysical Union Fall Meeting (2015) van der Veen, I, **JB West**, B Hoffmann, B Bookhagen, D Sachse. Seasonal and spatial variability of modeled leaf water δD values in the Himalaya
64. Ecological Society of America (2015) Rogers, WE, CL Wonkka, D Twidwell **JB West**. Operationalizing resilience in ecological restoration: A case study in a shrub-encroached semi-arid rangeland ecosystem
63. *Ecological Society of America (2015) Zhang, Y, JG Vogel, **JB West**. Effects of climate change and forest management on wood mass loss in southeastern US loblolly pine forests
62. International Atomic Energy Agency Isotope Hydrology Symposium (2014) Bowen, G.J, A. Putman, H. B. Vander Zanden, S. P. Good, Z. Liu, S. Terzer, L. Zhao, **J. B. West**, J. Revenaugh, B. H. Wilkinson. Leveraging GNIP and investigator research to map isotopic climate: two decades of precipitation isoscapes
61. Society of American Foresters (2014) Vogel, J and 18 PINEMAP co-authors. The Carbon Measurement Protocol of the Pine Integrated Network: Education, Mitigation, and Adaptation Project (PINEMAP)

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55. American Geophysical Union Fall Meeting (2013) West, J, E Wilson, A Hyodo. Understanding continental-scale variation in plant hydrogen and oxygen isotope ratios – *Pseudotsuga menziesii* across a 1500 km transect
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52. *Ecological Society of America (2013) Mattox, A, **J West**. Woody vegetation removal effects on soil moisture depend strongly on soil texture
51. Southwest Stream Restoration Conference (2013) Moore, G.W., J. West, K. Owens, L. Kui, F. Li, D. Watts. Water use of riparian invasive plants on Southwestern Rivers
50. #PINEMAP Annual Meeting (2013) Maggard, A., C. Meek, R. Will, D. Wilson, T. Hennessey, J. Pike, C. Ausmus, J. Vogel, and J. West. Preliminary leaf gas exchange and soil CO₂ efflux results for loblolly pine (*Pinus taeda* L.) plantations experiencing partial rainfall exclusion and fertilization in Oklahoma
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40. *Ecological Society of America Annual Meeting (2012) Li, F, **J West**, G Moore, L Kui. Persistence of floodwater sustains riparian plant transpiration during drought: A case study of *Arundo donax* on the Rio Grande
39. †Ecological Society of America Annual Meeting (2012) Lopez-Figueroa, N, R Colon-Rivera, R Feagin, **J West**. Using isotope hydrology to understand the impacts of climate change to tropical coastal wetlands
38. Isoscapes 2011 (2011) Miller, CC, L Zhao, A Kalangi, H Lee, G Bowen, **J West**, T Zhang, Z Liu. The IsoMAP CI Stack: The open source, grid-enabled technologies behind the IsoMAP project
37. Isoscapes 2011 (2011) **West, JB**, S Mittal, GJ Bowen, A Kalangi, HJ Lee, C Miller, T Zhang, L Zhao. Web-based leaf water isoscapes in IsoMAP using raster modeling
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33. American Geophysical Union Fall Meeting (2011) Moore, GW, **JB West**, F Li, L Kui. Rooting depth and water source flexibility of *Arundo donax* across a wide and topographically varied floodplain inferred from stable isotopes
32. American Geophysical Union Fall Meeting (2011) Sparks, JB, **JB West**, TW Boutton. Woody encroachment by nitrogen-fixing species: impacts on nitrogen biogeochemistry expressed through nitrogen trace gases
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22. American Society of Limnology and Oceanography Aquatic Sciences meeting (2011) Feagin, RA, RJ Colón-Rivera, **JB West**, and KM Yeager. Hydrological connectivity in salt marsh ponds: a stable isotope approach
21. *Ecological Society of America annual meeting (2010) Kui, L, F Li, JR Shallock, GW Moore, **JB West**. Ecohydrological controls on the distribution and performance of giant reed in the Rio Grande Valley
20. Goldschmidt Conference (2010) **West, JB**, HW Kreuzer, JR Ehleringer. Dissecting the large-scale spatiotemporal variation in *Ricinus communis* (Castor Bean) seed oil $\delta^{2}\text{H}$
19. Fourth Forensic Isotope Ratio Mass Spectrometry Conference. (2010) **West, JB**, JR Ehleringer, HM Kreuzer, JM Hurley, TE Cerling. Provenancing plant materials from isoscapes
18. †TeraGrid '09 (2009) Rapolu, N, G Bowen, L Zhao, C Miller, **J West**. Building IsoMAP (Isoscape Modeling, Analysis, and Prediction) on TeraGrid
17. American Geophysical Union (2009) **West, JB**, JR Shallock, R Cooper. Survey of groundwater isotopic composition ($\delta^{2}\text{H}$ and $\delta^{18}\text{O}$) from the southwestern Edwards Aquifer and regionally associated aquifers
16. American Geophysical Union (2009) Miller, CC, GJ Bowen, T Zhang, L Zhao, **JB West**, Z Liu, N Rapolu. IsoMAP (Isoscape Modeling, Analysis, and Prediction)
15. Millennium Conference 2009: Water Ecosystem Services, Drought, and Environmental Justice. (2009) **West, JB**. Survey of the hydrogen and oxygen isotopic composition ($\delta^{2}\text{H}$ and $\delta^{18}\text{O}$) of the southwest region of the Edwards aquifer and associated major and minor aquifers
14. ISOECOL VI (2008) **West, JB**, J Hurley, JR Ehleringer, TE Cerling. Inferring sources of plant materials from stable isotope ratios
13. American Geophysical Union (2007) **West, JB**, JR Ehleringer, JM Hurley, TE Cerling. Geospatial modeling of plant stable isotope ratios - the development of isoscapes
12. American Geophysical Union Fall meeting (2006) **West, JB**, TE Cerling, JR Ehleringer. Towards more accurate isoscapes – encouraging results from wine, water and marijuana data/model and model/model comparisons
11. Terroir wine conference, University of California, Davis (2006) **West, JB**, TE Cerling, JR Ehleringer. A wine region-of-origin signature program based on GIS and stable isotopes
10. National Science Foundation LTER All Scientists Meeting (2006) **West, JB**, SE Hobbie, T Lee, PB Reich. Inter-annual response of legume N dynamics in response to elevated $[\text{CO}_2]$ and N addition
9. American Geophysical Union Fall meeting (2005) **West, JB**, GJ Bowen, JR Ehleringer. Predicting hydrogen and oxygen stable isotope ratios of plants across terrestrial surfaces: Plant isoscapes
8. Ecological Society of America annual meeting (2005) **West, JB**, GJ Bowen, JR Ehleringer. Predicting stable isotope ratios of $\delta^{2}\text{H}$ and $\delta^{18}\text{O}$ in plants across terrestrial surfaces (ISOSCAPES)
7. Ecological Society of America annual meeting (2004) **West, JB**, F Dijkstra, SE Hobbie, PB Reich. Global change effects on microbial activity: The carbon connection and beyond

6. Ecological Society of America annual meeting (2003) **West, JB**, D Wedin, SE Hobbie, PB Reich. The dominant role of plant species in controlling the response of N mineralization to altered plant diversity, atmospheric CO₂, and N deposition
5. National Science Foundation LTER All Scientists Meeting (2003) **West, JB**, D Wedin, SE Hobbie, PB Reich. Mechanistic linkages between global change, plant species traits, and nitrogen mineralization
4. Ecological Society of America annual meeting (2001) **West, JB** and LA Donovan. The unique functional role of wiregrass in longleaf pine savannas
3. Ecological Society of America annual meeting (2000) **West, JB** and LA Donovan. The divergent effects of understory species assemblages on nitrogen cycling in longleaf pine (*Pinus palustris*) savannas
2. Ecological Society of America annual meeting (1999) **West, JB** and LA Donovan. A glasshouse comparison of *Aristida stricta* and *A. beyrichiana* and their putative ecotypes
1. Ecological Society of America annual meeting (1998) **West, JB**, L Donovan, and K McLeod. Ecophysiological characteristics of three co-occurring oak species on a resource limited fall line sandhill site