Yuting Zhou

Department of Geography,
Oklahoma State University
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Education

Ph.D. in *Ecology and Evolutionary Biology*, May 2017, Department of Microbiology and Plant Biology, University of Oklahoma, USA

M.S. in *Ecology*, July 2013, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, China

B.S. in *Resource, Environment, and Urban/Rural Planning and Management,* July 2010, Shandong University of Science and Technology, China

Professional experience

Aug 2019-Present	Assistant Professor at Oklahoma State University
Aug 2017-Agu 2019	Post-Doctoral Fellow at USDA-ARS Grazinglands Research Laboratory (Funded through Oklahoma State University)
Aug 2013-May 2017	Graduate Research Assistant at University of Oklahoma
May 2016-Jun 2016	Guest Lecture at University of Oklahoma
Aug 2015-Dec 2015	Graduate Teaching Assistant at University of Oklahoma
Aug 2014-Dec 2014	Graduate Teaching Assistant at University of Oklahoma

Research Interests

Applications of remote sensing and spatial analysis to food-water-energy nexus

Monitoring, early warning, and impact assessment of agricultural drought

Land use and land cover change

Sustainable development of coupled human and natural systems

Integrating satellite and *in-situ* remote sensing with flux measurements

Peer Reviewed Journal Publications (*indicates corresponding author)

38. Ma, S., **Zhou, Y*.,** Chen, L., Gowda, P., Dong, J., Zhang, G., Kakani, V., Wagle, P., Chen, L., Flynn, K.C., Jiang, W. 2019. Water related spectral reflectance indices: A review. *Ecological Indicators* 98:68-79.

37. Bajgain, R., Xiao, X., Basara, J., Wagle, P., **Zhou, Y.,** Mahan, H., Gowda, P., McCarthy, H.R., Northup, B., Neel, J. and Steiner, J. 2018. Carbon dioxide and water vapor fluxes in winter wheat and tallgrass prairie in central Oklahoma. *Science of the Total Environment,* 644:1511-1524.

36. Xu, W., Qin, Y., Xiao, X., Di, G., Doughty, R., **Zhou, Y.,** Zou, Z., Kong, L., Niu, Q., Kou, W. 2018. Quantifying spatial-temporal changes of tea plantations in complex landscapes through integrative analyses of optical and microwave imagery. *International Journal of Applied Earth Observation and Geoinformation*, 73:697-711.

35. Wagle, P., Gowda, P.H., Northup, B.H., Turner, K.E., Neel, P.S.J., Manjunatha, P., **Zhou, Y.** 2018. Variability in carbon dioxide fluxes among six winter wheat paddocks managed under different tillage and grazing practices. *Atmospheric Environment*, 185:100-108.

34. Doughty, R., Xiao, X., Wu, X., Zhang, Y., Bajgain, R., **Zhou, Y.,** Qin, Y., Zou, Z., McCarthy, H., Friedman, J. and Wagle, P. 2018. Responses of gross primary production of grasslands and croplands under drought, pluvial, and irrigation conditions during 2010–2016, Oklahoma, USA. *Agricultural Water Management*, 204:47-59.

33. Zhang, G., Biradar, C. M., Xiao, X., Dong, J., **Zhou, Y.,** Qin, Y., Zhang, Y., Liu, F., Ding, M. and Thomas, R. J. 2018. Exacerbated grassland degradation and desertification in Central Asia during 2000–2014. *Ecological Applications*, 28: 442–456.

32. Qin Y., Xiao X., Dong J., **Zhou Y.,** Wang J., Doughty R., Chen Y., Zou Z., Moore B. 2017. Annual dynamics of forest areas in South America during 2007–2010 at 50- m spatial resolution. *Remote Sensing of Environment*, 201:73-87.

31. **Zhou, Y.,** Xiao, X., Zhang, G., Wagle, P., Bajgain, R., Dong, J., Jin, C., Basara, B.J., Anderson, C. M., Hain, R.C., Otkin, A. J. 2017. Quantifying agricultural drought in tallgrass prairie region in the U.S. Southern Great Plains through analysis of a water-related vegetation index from MODIS images. *Agricultural and Forest Meteorology*, 246:111-122.

30. **Zhou, Y.,** Xiao, X., Wagle, P., Bajgain, R., Mahan, H., Basara, B.J., Dong, J., Qin, Y., Zhang, G., Luo, Y., Gowda, P.H., Neel, P.S.J., Steiner, L.J. 2017. Examining the short-term impacts of diverse management practices on plant phenology and carbon fluxes of Old World bluestems pasture. *Agricultural and Forest Meteorology*, 237-238:60-70.

29. Zhang, G., Xiao, X., Biradar, C., Dong, J., Qin, Y., Menarguez, M., **Zhou, Y.,** Zhang, Y., Jin, C., Wang, J., Doughty, R., Ding, M., Moore, B. 2016. Spatiotemporal patterns of paddy rice croplands in China and India from 2000 to 2015. *Science of the Total Environment*, 579:82-92.

28. Bajgain, B., Xiao, X., Basara, J., Wagle, P., **Zhou, Y.,** Zhang, Y., Mahan, H. 2016. Assessing agricultural drought in summer over Oklahoma Mesonet sites using the water-related vegetation index from MODIS. *International Journal of Biometeorology*, 61(2):377-390.

27. **Zhou, Y.**, Xiao, X., Qin, Y.W., Dong, J.W., Zhang, G.L., Kou, W.L., Jin, C, Wang, J., Li, X.P. 2016. Mapping paddy rice planting area in rice-wetland mixed areas through analysis of Landsat 8 OLI and MODIS images. *International Journal of Applied Earth Observation and Geoinformation*, 46:1-12.

26. Dong, J., Xiao, X., Kou, W., Qin, Y., Zhang, G., Li, L., Jin, C., **Zhou, Y.,** Wang, J., Biradar, C., Liu, J., Moore III, B. 2015. Tracking the dynamics of paddy rice planting area

in 1986–2010 through time series Landsat images and phenology-based algorithms. *Remote Sensing of Environment,* 160:99-113.

25. Dong, J., Xiao, X., Wagle, P., Zhang, G., **Zhou, Y.,** Jin, C., Torn, M., Meyers, T., Suyker, A., Wang, J., Yan, H., Biradar, C., Moore, B. 2015. Comparison of four EVI-based models for estimating gross primary production of maize and soybean croplands and tallgrass prairie under severe drought. *Remote Sensing of Environment,* 162:154-168.

24. Qin, Y., Xiao, X., Dong, J., **Zhou, Y.,** Zhu, Z., Zhang, G., Du, G., Jin, C., Kou, W., Wang, J., Li, X. 2015. Mapping paddy rice planting area in cold temperate climate region through analysis of time series Landsat 8 (OLI), Landsat 7 (ETM+) and MODIS imagery. *ISPRS Journal of Photogrammetry and Remote Sensing*, 105:220–233.

23. Wang, J., Xiao, X., Qin,Y., Dong, J., Zhang, G., Kou, W., Jin, C., **Zhou, Y.,** Zhang, Y. 2015. Mapping paddy rice planting area in wheat-rice double-cropped areas through integration of Landsat-8 OLI, MODIS, and PALSAR images. *Scientific Reports*, 5:1-11.

22. Zhang, G., Xiao, X., Dong, J., Kou, W., Jin, C., Qin, Y., **Zhou, Y.,** Wang, J., Menarguez, M., Biradar, C. 2015. Mapping paddy rice planting areas through time series analysis of MODIS land surface temperature and vegetation index data. *ISPRS Journal of Photogrammetry and Remote Sensing,* 106:157-171.

21. Wagle, P., Xiao, X., Scott, R. L., Kolb, T. E., Cook, D. R., Brunsell, N., Baldocchi, D. D., Basara, J., Matamala, R., **Zhou, Y.,** Bajgain, R. 2015. Biophysical controls on carbon and water vapor fluxes across grassland climatic gradient in the United States. *Agricultural and Forest Meteorology,* 214:293-305.

20. Fu, G., Shen, Z., Sun, W., Zhong, Z., Zhang, X., **Zhou, Y.** 2015. A meta-analysis of the effects of experimental warming on plant physiology and growth on the Tibetan Plateau. *Journal of Plant Growth Regulation*, 34(1):57-65.

19. Bajgain, B., Xiao, X., Wagle, P., Basara, J., **Zhou, Y.** 2015. Sensitivity analysis of vegetation indices to drought over two tallgrass prairie sites. *ISPRS Journal of Photogrammetry and Remote Sensing,* 108:151-160.

18. Fu, G., Zhang, X., **Zhou, Y.**, Yu, C., Shen, Z. 2014. Partitioning sources of ecosystem and soil respiration in an alpine meadow of Tibet Plateau using regression method. *Polish Journal of Ecology,* 62(1):17-24.

17. Wu J., Shen Z., Shi P., **Zhou Y.,** & Zhang X. 2014. Effects of grazing exclusion on plant functional group diversity of alpine grasslands along a precipitation gradient on the northern Tibetan Plateau. *Arctic, Antarctic, and Alpine Research,* 46:419-429.

16. Yang, P., Fu, G., Li., Y., **Zhou, Y.**, Shen, Z. 2014. Aboveground biomass assessment in the Northern Tibet Plateau using ground-level remotely-sensed data. *Pratacultural Sciences*, 31(7):1211-1217 (In Chinese with English Abstract).

15. Fu, G., Zhang, X., Yu, C., Shi, P., **Zhou, Y.**, Li., Y., Yang, P., Shen, Z. 2014. Response of soil respiration to grazing in an alpine meadow at three elevations in Tibet. *The Scientific World Journal* 2014.

14. Fu, G., Zhang, X., Zhang, Y., Shi, P., Li., Y., **Zhou, Y.**, Yang, P., Shen, Z. 2013. Experimental warming does not enhance gross primary production and above-ground biomass in the alpine meadow of Tibet. *Journal of Applied Remote Sensing,* 7(1):073505.

13. Fu, G., Zhang, Y., Zhang, X., Shi, P., **Zhou, Y.**, Li., Y., Shen, Z. 2013. Response of ecosystem respiration to experimental warming and clipping in Tibetan alpine meadow at three elevations. *Biogeosciences Discussions,* 10(8):13015-13047.

12. Fu, G., Shen, Z., Zhang, X., Yu, C., **Zhou, Y.**, Li., Y., Yang, P. 2013. Response of ecosystem respiration to experimental warming and clipping at daily time scale in an alpine meadow of Tibet. *Journal of Mountain Science,* 10(3):455-463.

11. Li, Y., **Zhou, Y.,** Zhang, X., Shen, Z., Shi, P., Yu, C., Wu, J. 2013. Awareness and reaction of herdsmen to the policy of Returning Grazing Land to Grasslands in the Changtang Plateau, Tibet. *Pratacultural Science,* 30(5):788-794 (In Chinese with English Abstract).

10. **Zhou, Y.,** Fu, G., Shen, Z., Zhang, X., Wu, J. 2013. Estimating model of aboveground biomass in the northern Tibet Plateau based on remote sensing date. *Acta Prataculturae Sinica,* 22(1):120-129 (In Chinese with English Abstract).

9. Fu, G., Shen, Z., Zhang, X., **Zhou, Y.** 2012. Response of soil microbial biomass to short-term experimental warming in alpine meadow on the Tibetan Plateau. *Applied Soil Ecology*, 61:158-160.

8. Fu, G., Shen Z., Zhang, X., **Zhou, Y.**, Zhang, Y. 2012. Response of microbial biomass to grazing in an alpine meadow along an elevation gradient on the Tibetan Plateau. *European Journal of Soil Ecology,* 52:27-29.

7. Wu, J., Li, X., Shen, Z., Zhang, X., Shi, P., Yu, C., Wang, J., **Zhou, Y.** 2012. Species diversity distribution pattern of alpine grasslands communities along a precipitation gradient across Northern Tibetan Plateau. *Acta Prataculturae Sinica,* 27(3):17-25. (In Chinese with English Abstract).

6. Fu, G., Shen, Z., Zhang, X., Shi, P., He, Y., Zhang, Y., Sun, W., Wu, J., **Zhou, Y.**, Pan, X. 2012. Calibration of MODIS-based gross primary production over an alpine meadow on the Tibetan Plateau. *Canadian Journal of Remote Sensing,* 38(2):157-168.

5. Fu, G., Shen, Z., Zhang, X., Shi, P., He,Y., Sun, W., Wu, J., **Zhou, Y.** 2012. Modeling light use efficiency of an alpine meadow on Northern Tibetan Plateau using Evaporative Fraction and air temperature. *Journal of Natural Resources,* 27(3):450-459. (In Chinese with English Abstract).

4. Fu, G., Shen, Z., Zhang, X., Shi, P., He, Y., Wu, J., **Zhou, Y.** 2011. Modeling soil respiration of alpine meadow on the Northern Tibet Plateau using MODIS and climate data. *Acta Agrestia Sinica,* 19(3):400-405. (In Chinese with English Abstract).

3. Fu, G., **Zhou, Y.**, Shen, Z., Zhang, X., Wu, J. 2011. Relationships between aboveground biomass and climate factors on alpine meadow in Northern Tibet. *Chinese Journal of Grassland,* 33(4):31-36. (In Chinese with English Abstract).

2. Fu, G., **Zhou, Y.**, Shen, Z., Zhang, X., Shi, P., He, Y., Yu, G., Wu, J. 2011. Satellite-based modeling light use efficiency of alpine meadow along an altitudinal gradient. *Acta Ecologica Sinica*, 31(23):6989-6998. (In Chinese with English Abstract).

1. Fu, G., **Zhou, Y.**, Shen, Z., Zhang, X., Shi, P., He, Y., Wu, J. 2010. Relationships between ecosystem respiration and environmental factors of alpine grazing meadows along an altitudinal gradient (4300~4700m). *Ecology and Environmental Sciences*, 19(12):2789-2794. (In Chinese with English Abstract).

Papers in preparation/under review (*indicates corresponding author)

7. Flynn, K.C., **Zhou, Y*.,** Gowda, P.H., Wagle, P., Moffet, C., Burning and climate interactions determine impacts of grazing on tallgrass prairie systems (In Preparation)

6. **Zhou, Y*.,** Xiao, X., Zhang, Y., Zou, Z., Osei, E., Bajgain, R., Basara, B.J., Steiner, L.J. Consecutive years of agricultural drought caused the large losses of cattle production in the U.S. Southern Great Plains (In preparation).

5. **Zhou, Y*.,** Ma, S., Wagle, P., Gowda, P.H., Neel, P.S.J., Kakani, V.G., Starks, P. Responses of tall grass prairie to continuous and rotational grazing systems in different climates (In preparation).

4. Hasan, E., **Zhou, Y*.,** Tarhule, A., Moore, B., Gowda, P. Responses of gross primary productivity to water storage components under different climate conditions (In preparation).

3. Mahan, H., Basara, J., Ryu, Y., Jiang, C., **Zhou, Y.,** Bajgain, R., Wagle, P., Gowda, P., Xiao, X. A verification of the Breathing Earth System Simulator (BESS) evapotranspiration product over the Southern Great Plains of the United States (Under review in *Agricultural and Forest Meteorology*).

2. **Zhou, Y*.,** Ma, S., Wagle, P., Gowda, P.H., Neel, P.S.J., Kakani, V.G. Impacts of climate and management interactions on vegetation phenology and gross primary production in native and introduced prairie pastures (Under review in *Science of the Total Environment*).

1. **Zhou, Y*.,** Flynn, K.C., Gowda, P.H., Wagle, P., Ma, S., Kakani, V.G., Steiner, L.J. Detecting frequent harvesting of alfalfa using active and passive remote sensing. (Under review in *Remote Sensing of Environment*).

Professional Conference Presentations

27. Dong, J., Xiao, X., Zhang, G., Qin, Y., Wang, J., Jin, C., **Zhou, Y.** Reversed pattern of paddy rice planting area in northern and southern China during the 21st century. *AGU fall meeting*, December 10-14, 2018, Washington D.C., USA (Poster).

26. Flynn, K.C., **Zhou, Y.,** Moffet, C., Flynn, K.C., Steiner, J. Response of grassland phenology to burning and grazing in different climatic conditions in Southern Oklahoma. *AGU fall meeting*, December 10-14, 2018, Washington D.C., USA (Poster).

25. Wagle, P., **Zhou, Y.,** Gowda, P.H. Integrating eddy fluxes and multiple remote sensing products in a rotational grazing native pasture. *AGU fall meeting*, December 10-14, 2018, Washington D.C., USA (Poster).

24. **Zhou, Y.,** Gowda, P.H., Wagle, P., Kakani, V., Yildirim, T. Examine the impact of different managements on grassland productivity at global FLUXNET sites. *AGU fall meeting*, December 10-14, 2018, Washington D.C., USA (Poster).

23. Yildirim, T., **Zhou, Y.,** Flynn, K.C., Gowda, P.H. Akkuzu, E., Kurucu, Y., Evaluating the Impacts of Drought on Three Different Mediterranean Crops Using Remote Sensing. *ASA and CSSA Meeting with the Canadian Society of Agronomy*, November 4-7, 2018, Baltimore, Maryland, USA (Poster).

22. **Zhou, Y.,** Xiao, X., Jiang, W., Dong, J., Basara, J., AghaKouchak, A., Gowda, P., Kakani, V. Water-related spectral reflectance indices: principle, constructing, application, and improvement. *AGU fall meeting*, December 11-15, 2017, New Orleans, Louisiana, USA (Poster).

21. Zhang, G., Xiao, X., Dong, J., Zhang, Y., Xin, F., **Zhou, Y.,** Jie, W., Wu, X., Moore, B. Effects of paddy rice agriculture on the seasonal dynamics of atmospheric methane concentration. *AGU fall meeting*, December 11-15, 2017, New Orleans, Louisiana, USA (Poster).

20. Doughty, R., Xiao, X., Qin, Y., Wu, X., Zhang, Y., Zou, Z., Bajgain, R., **Zhou, Y.,** Basara, J., McCarthy, H., Friedman, J. Sensitivity of gross primary production of irrigation-permitted and non-permitted grassland and croplands to drought and pluvial conditions during 2010-2016. *AGU fall meeting*, December 11-15, 2017, New Orleans, Louisiana, USA (Poster).

19. Bajgain, R., Xiao, X., Doughty, R., Zhang, Y., Basara, J., Wagle, P., **Zhou, Y.,** Gowda, P., Steiner, J. Climate variability and productivity of grassland under different management systems. *AGU fall meeting*, December 11-15, 2017, New Orleans, Louisiana, USA (Poster).

18. Xiao, X., Zhang, Y., Wu, X., **Zhou, Y.,** Bajgain, R., Basara, J., Crowell, S., Doughty, R., Moore, B. Seasonal dynamics and inter-annual variation of solar-induced chlorophyll fluorescence and gross primary production of vegetation in North America. *2017 Joint NACP and AmeriFlux Principle Investigators Meeting*, March 27-30, 2017, North Bethesda, Maryland, USA (Poster).

17. **Zhou, Y.,** Xiao, X., Stanton, M., Doughty, R., Bajgain, R., Basara, J., Steiner, J. Consecutive years of agricultural drought drove the large losses of cattle production in the U.S. Southern Great Plains. *Oklahoma Natural Resources Conference 2017*, February 22-24, 2017, Tulsa, Oklahoma, USA (Oral).

16. Mahan, H., Basara, J., Ryu, Y., Huang, Y., Jiang, C., Xiao, X., **Zhou, Y.,** Bajgain, R., Wagle, P. Evaluation of evapotranspiration from the Breathing Earth System Simulator (BESS) land surface model over the Southern Great Plains of the United States. *AGU fall meeting*, December 12-16, 2016, San Francisco, California, USA (Poster).

15. **Zhou, Y.,** Xiao, X., Wagle, P., Bajgain, R., Mahan, H., Basara, J., Dong, J., Qin, Y., Zhang, G., Luo, Y., Steiner, J., Gowda, P., Neel, J. Detecting the fingerprints of complex land management practices in a tallgrass prairie site using PhenoCam, satellite remote sensing, and the eddy covariance technique. *AGU fall meeting*, December 12-16, 2016, San Francisco, California, USA (Oral).

14. Bajgain, R., Xiao, X., Basara, J., Wagle, P., **Zhou, Y.,** Gowda, P., Mahan, H., Steiner, J. Carbon dioxide and water vapor fluxes of winter wheat and tallgrass prairie ecosystems. *AGU fall meeting*, December 12-16, 2016, San Francisco, California, USA (Poster).

13. Wang, J., Xiao, X., Dong, J., Zhang, G., Zhang, Y., Zou, Z., **Zhou, Y.,** Wu, X., Bajgain, R. Mapping woody plant encroachment in grassland using multiple source remote sensing images: case study in Oklahoma. *AGU fall meeting*, December 14-18, 2015, San Francisco, California, USA (Poster).

12. Bajgain, R., Xiao, X., Basara, J., Wagle, P., **Zhou, Y.,** Zhang, G., Mahan, H. Assessing summer drought over Oklahoma Mesonet sites with the MODIS land surface water index. *AGU fall meeting*, December 14-18, 2015, San Francisco, California, USA (Poster).

11. **Zhou, Y.,** Xiao, X., Zhang, G., Bajgain, R., Dong, J., Qin, Y., Jin, C., Wagle, P., Basara, J., McCarthy, H., Anderson, M., Hain, C., Otkin, J. Spatial-temporal dynamics of agricultural drought in the tallgrass prairie region of the Southern Great Plains during 2000-2013. *AGU fall meeting*, December 14-18, 2015, San Francisco, California, USA (Poster).

10. **Zhou, Y.,** Xiao, X., Zhang, G., Wagle, P., Bajgain, R., Basara, J., Jin, C., Dong, J. Agriculture drought in tallgrass prairie of the Southern Great Plains and its impact on beef cattle production. *Society of Environmental Journalists (SEJ) 25th Annual Conference*, October 7-11, 2015, Norman, Oklahoma, USA (Poster).

9. **Zhou, Y.,** Xiao, X., Zhang, G., Wagle, P., Bajgain, R., Basara, J., Jin, C., Dong, J. Spatial-temporal dynamics of severe agricultural drought in tallgrass prairie of the Southern Great Plaints during 2000-2013. *Year 3 Grazing CAP Annual Meeting*, March 18-19, 2015, Norman, Oklahoma, USA (Poster).

8. **Zhou, Y.,** Xiao, X., Zhang, G., Wagle, P., Bajgain, R., Basara, J. Mapping the duration and severity of drought impacts on grasslands in the Southern Great Plains through a water-related vegetation index derived from MODIS imagery. *AGU fall meeting*, December 15-19, 2014, San Francisco, California, USA (Poster).

7. Xiao, X., Zhang, G., Dong, J., Menarguez, M., Kou, W., Jin, C., Qin, Y., **Zhou, Y.,** Wang, J., Moore, B. Annual changes of paddy rice planting areas in Northeastern Asia from MODIS images in 2000-2014. *AGU fall meeting*, December 15-19, 2014, San Francisco, California, USA (Poster).

6. Mahan, H., Wagle, P., Bajgain, R., **Zhou, Y**., Basara, J., Xiao, X., Duckles, J., Steiner, J., Starks, P., Northup, B. Integrated cropland and grassland flux tower observation sites over grazinglands for quantifying surface-atmosphere exchange. *AGU fall meeting*, December 15-19, 2014, San Francisco, California, USA (Poster).

5. Dong, J., Xiao, X., Kou, W., Qin, Y., Wang, J., Zhang, G., Jin, C., **Zhou, Y.** Menarguez, M., Moore, B., Changes of paddy rice planting areas in Northeastern Asia from 1986 to 2014 based on Landsat data. *AGU fall meeting*, December 15-19, 2014, San Francisco, California, USA (Oral).

4. **Zhou, Y.,** Xiao, X., Zhang, G., Wagle, P., Bajgain, R., Basara, J., Cui, J. Mapping the duration and severity of drought impacts on grasslands in the Southern Great Plains through a water-related vegetation index derived from MODIS imagery. *GIS Day at the University of Oklahoma*. November 13, 2014, Norman, Oklahoma, USA (Poster).

3. Xiao, X., Basara, J., Steiner, J., Coleman, S., Duckles, J., Wagle, P., Northup, B., **Zhou, Y.,** Bajgain, R. Integrated grassland observation sites and integrated cropland observation sites at El Reno, Oklahoma. *Oklahoma NSF EPSCoR Climate Variability Researcher Conference*, April 10, 2014, Norman, Oklahoma, USA (Poster).

2. **Zhou, Y.,** Xiao, X. Data collection for El Reno and Green Valley Farm. *The Second Modeling and LCA meeting for the USDA NIFA Beef Cattle Project*, February 11-12, 2014, Stephenville, Texas, USA (Oral).

1. **Zhou, Y.,** Xiao, X. Mapping natural wetlands and paddy rice in Panjin, Northeastern China, using multi-temporal Landsat 8 images. *GIS Day at the University of Oklahoma*. November 20, 2013, Norman, Oklahoma, USA (Poster).

Professional training and workshop attended

10. 4th Annual LTAR (Long-Term Agroecosystem Research) Conference, El Reno, Oklahoma, USA, April 24-26, 2018

9. Year 5 Grazing CAP (Resilience and vulnerability of beef cattle production in the Southern Great Plains under changing climate, land use and markets) Annual Meeting, Norman, Oklahoma, USA, June 20-21, 2017

8. Eddy Covariance Training Course at LI-COR, Lincoln, Nebraska, USA. August 18-20, 2015

7. The 2015 Workshop at MOISST (Marena, Oklahoma In Situ Sensor Testbed): The Dawn of the Soil Moisture Information Age? Stillwater, Oklahoma, USA, June 2-3, 2015

6. The 2014 Workshop at MOISST: Advancing Soil Moisture Science and Applications. June 4-5, 2014, Stillwater, Oklahoma, USA.

5. The Second Annual Meeting of Grazing CAP, Ardmore, Oklahoma, March 10-11, 2014

4. AGU fall meeting, San Francisco, California, USA. December 9-13, 2013

3. Annual Workshop on Geospatial Science, Technologies and Applications *Theme in 2013: Lands Cover and Land Use Changes*, Norman, Oklahoma, USA. November 21, 2013

2. Oklahoma Supercomputing Symposium 2013, Norman, Oklahoma, USA. October 1-2, 2013

1. The First Modeling Workshop for the USDA NIFA Beef Cattle Project, Norman, Oklahoma, USA. August 27-28, 2013

Professional Skills

Computer languages: Python, R, and C++.

Software: ArcGIS, QGIS, ENVI/IDL, Google Earth Engine, and FRAGSTATS.

Field observation: Unmanned Aerial Systems (UAS); Spectroradiometer (ASD and PSR+), LAI, eddy covariance, PhenoCam, chlorophyll meter, canopy coverage, aboveground biomass, soil moisture etc.

Certificates

2018 Remote Pilot certificate (CFR Part 107) Federal Aviation Administration

Teaching Experience

2016 Guest Lecturer *PBIO-4970 Environmental Sampling Methods*

2015 Teaching Assistant *GIS/PBIO-4733/5733 Environmental Remote Sensing*

2014 Teaching Assistant *GIS/PBIO-4733/5733 Environmental Remote Sensing*

Professional Memberships

2013-Present American Geographical Union (AGU)

Professional Services and Activities

2018 Chair, session titled "Use Remote Sensing and Eddy Covariance Techniques to Quantify the Impacts of Climate and Managements on Grassland (B33H)" in *American Geographical Union (AGU) fall meeting*

2015 Student Liaison, *GIS Day at the University of Oklahoma*

2014 Student Liaison, *GIS Day at the University of Oklahoma*

Honors and Awards

2015 Robberson Conference Presentation and Creative Exhibition Travel Grant, University of Oklahoma, Norman, Oklahoma.

Peer Reviewer for Academic Journals

Ecological Engineering (1)

Ecology and Evolution (1)

ISPRS Journal of Photogrammetry and Remote Sensing (4)

Land Degradation & Development (1)

Physics and Chemistry of the Earth (1)

Remote Sensing (3)

Remote Sensing Letters (1)

Science of the Total Environment (2)

Soil Biology and Biochemistry (1)
Sustainability (1)
Water (1)