XUANLONG MA

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EDUCATION

Institute of Geographic Sciences and Natural Resources Research,
Chinese Academy of Sciences *2009 - 2014*
Ph.D. in Ecology
Dissertation: "Integrating remote sensing, meteorology, and eddy flux data to study savanna vegetation phenology"
Advisors: Prof. Qiang Yu & Prof. Alfredo Huete

Plant Functional Biology and Climate Change Cluster,
University of Technology, Sydney *2011 - 2012*
Visiting research student in Remote Sensing
Research topic: "Coupling satellite remote sensing and landscape flux measurements to investigate spatial and temporal variations in savanna vegetation phenology and productivity"
Advisors: Prof. Alfredo Huete & Prof. Qiang Yu

Lanzhou University *2006 - 2008*
M.S. in Grassland Geographic Information Science

Lanzhou University *2002 - 2006*
Undergraduate in Grassland Science

AWARD

Joint Ph.D. scholarship *May 2010*
Chinese Scholarship Council, Ministry of Education, China

This scholarship provides me funding support to study abroad at University of Technology, Sydney, Australia from January 2011 to December 2012.

PROFESSIONAL STRENGTHS

Skills	Remote sensing, programming, spatial data analysis, satellite image processing, time series analysis, statistics
Tools	R, GDAL, Vim, ENVI, ArcGIS, ERDAS, ImageJ
Languages	Chinese in native proficiency English in professional working proficiency, IELTS (Academic) Score: 7.0

PUBLICATIONS

Journal Articles

- **Ma, X.**, Huete, A., Yu, Q., Restrepo-Coupe, N., Beringer, J., Hutley, L. B., Kanniah, K. D., Cleverly, J., Eamus, D. Parameterization of an ecosystem light-use-efficiency model for predicting savanna GPP using MODIS EVI. ***Remote Sensing of Environment*** **(in revision).**
- Broich, M., Huete, A., Paget, M., **Ma, X.**, Devadas, R., Restrepo-Coupe, N., Davies, K., Held, A. A spatially explicit vegetation phenology data product for science, monitoring and natural resources management applications across Australia, a country with highly variable rainfall. ***Environmental Modelling & Software*** **(in revision).**

- Broich, M., Huete, A., Tulbure, M. G., **Ma, X.**, Xin, Q., Paget, M., Restrepo-Coupe, N., Davies, K., Devadas, R., Held, A. (2014). Land surface phenological response to decadal climate variability across Australia using satellite remote sensing. ***Biogeosciences Discussions***, 11(5), 7685-7719.
- **Ma, X.**, Huete, A., Yu, Q., Restrepo-Coupe, N., Davies, K., Broich, M., Ratana, P., Beringer, J., Hutley, L. B., Cleverly, J., Boulain, N., Eamus, D. (2013). Spatial patterns and temporal dynamics in savanna vegetation phenology across the North Australian Tropical Transect. ***Remote Sensing of Environment***, 139, 97-115.
- **Ma, X.**, et al. Towards the functional partition of savanna vegetation productivity into tree and grass components using time series of satellite remote sensing observations. ***In preparation.***
- **Ma, X.**, et al. Shifts in savanna ecosystem sensitivity to hydroclimatic variability along an ecological rainfall gradient. ***In preparation.***

Conference Proceedings & Abstracts

- Huete, A., Restrepo-Coupe, N., **Ma, X.**, Miura, T., Eamus, D., Cleverly, J., Beringer, J., Hutley, L. B., Meyer, W. S., van Gorsel, E. (2013). Scaling tower flux and satellite measures of ecosystem function across biomes, seasons, and extreme dry to wet years in Australia. ***Invited abstract presented at 2013 Fall Meeting, American Geophysical Union (AGU)***, 9-13 December, San Francisco, California, USA.
- Broich, M., Huete, A., Held, A., **Ma, X.**, Davies, K., Restrepo-Coupe, N., Devadas, R. (2013). Highly variable phenology across the driest inhabited continent characterized by the Australian phenology product. ***Abstract presented at 2013 Fall Meeting, AGU***, 9-13 December, San Francisco, California, USA.
- Ratana, P., Huete, A., Ferreira, L. G., **Ma, X.**, Restrepo-Coupe, N. (2013). Comparisons of savanna functioning, phenology, and disturbance in Brazil and Australia using MODIS and TRMM satellite data. ***Abstract presented at 2013 Fall Meeting, AGU***, 9-13 December, San Francisco, California, USA.
- **Ma, X.**, Huete, A., Yu, Q., Davies, K., Restrepo-Coupe, N. (2012). Monitoring spatial patterns of vegetation phenology in an Australian tropical transect using MODIS EVI. ***ISPRS-International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences***, XXXIX-B8, 271-276.
- Huete, A., **Ma., X**, Ponce-Campos, G. E., Moran, M. S., Davies, K., Restrepo-Coupe, N., Broich, M., Eamus, D. (2012). Satellite-based biome productivity responses to large scale drought and wet cycles in Australia. ***Abstract presented at 2012 Fall Meeting, AGU***, 3-7 December, San Francisco, California, USA.
- Huete, A., Eamus, D., **Ma, X.**, Restrepo-Coupe, N., Boulain, N., Hutley, L. (2011). Monitoring phenological variability across a tropical savanna aridity gradient with remote sensing across seasonal to annual and extreme events. ***ISPRS-International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences***, 3820, 19-19.

ORAL PRESENTATIONS

- **Ma, X.**, Huete, A., Boulain, N., Restrepo-Coupe, N., Yu, Q., Davies, K., Broich, M. Time series based decomposition of MODIS phenology profiles into woody and herbaceous components. ***The 35th International Symposium on Remote Sensing of Environment (ISRSE)***, 22-26 April, 2013, Beijing, China.
- Broich, M., Huete, A., Lymburner, L., Held, A., **Ma, X.**, Davies, K., Restrepo-Coupe, N., Ratana, P. Breathing and ecosystem resilience under drought and deluge: a MODIS land surface phenology model for Australia. ***The 4th Australian Terrestrial Ecosystem Research Network (TERN) Annual Symposium***, 18-20 February, 2013, Canberra, Australia.
- **Ma, X.**, Huete, A., Yu, Q., Davies, K., Restrepo-Coupe, N. Monitoring spatial patterns of vegetation phenology in an Australian tropical transect using MODIS EVI. ***The XXII Congress of the International Society for Photogrammetry and Remote Sensing (ISPRS)***, 25 August - 1 September, 2012, Melbourne, Australia.

- Huete, A., **Ma, X.**, Ponce-Campos, G., Moran, M. S., Hutley, L. B., Davies, K., Restrepo-Coupe, N., Eamus, D. Shifts in ANPP and rainfall-use-efficiency across Australian savannas using MODIS and TRMM data. ***The 22nd Congress of the International Society for Photogrammetry and Remote Sensing (ISPRS)***, 25 August - 1 September, 2012, Melbourne, Australia.
- Huete, A., **Ma, X.**, Ponce-Campos, G., Moran, M. S., Restrepo-Coupe, N., Davies, K., Eamus, D. Rainfall-use-efficiency and productivity interactions across large scale drought and wet cycles in Australia. ***The 2012 Asia Oceania Geosciences Society and American Geophysical Union Joint Assembly***, 13-17 August, 2012, Singapore.
- Huete, A., Eamus, D., **Ma, X.**, Restrepo-Coupe, N., Davies, K., Hutley, L. B. Satellite spectral, spatial, temporal, phenologic sensitivities in upscaling fluxes. ***The 2011 Australian and New Zealand Flux Research and Monitoring (OzFlux) meeting***, 14 June, 2011, Perth, Australia.
- Huete, A., Eamus, D., **Ma, X.**, Restrepo-Coupe, N., Davies, K., Hutley, L. B. Spatial-temporal patterns in satellite-derived fluxes across a tropical savannah moisture gradient. ***The 34th International Symposium on Remote Sensing of Environment***, 10-15 April, 2011, Sydney, Australia.