

He Yin, PhD

PERSONAL INFORMATION

I am generally interested in utilizing remote sensing and geospatial techniques for environmental monitoring and assessment. My specific interests are satellite imagery time series and GIS spatial analysis with a strong focus on land use and land cover change.

EDUCATION AND TRAINING

- 2013 July The European Space Agency (ESA) 4th Advanced Training Course in Land Remote Sensing, Athens, Greece
- 2010 – 2014 PhD in Geomatics Lab, Geography Department, Humboldt-University Berlin, Germany
Thesis: Understanding land use and land cover change in Inner Mongolia using remote sensing time series.
Advisor: Prof. Dr. Patrick Hostert
- 2006 – 2009 MSc in Physical Geography
College of Urban and Environmental Sciences, Peking University, China
Thesis: Desertification assessment in Inner Mongolia based on vegetation dynamics.
Advisor: Prof. Dr. Yanglin Wang
- 2002 – 2006 BSc in Ecological Tourism Management
College of Wildlife Resources, Northeast Forestry University, China
Thesis: Environmental protection and ecological design for Jingpo Lake National Park, China.
Advisor: Prof. Dr. Hongxian Yu

WORKING EXPERIENCE

- 2015.12- Postdoctoral Research Associate
Department of Forest and Wildlife Ecology, University of Wisconsin-Madison, USA
Working for the projects:
- NASA Land-Cover and Land-Use Change (LCLUC) Program -Land use change in the Caucasus Mountains due to ethnic differences, national policies, and armed conflicts
 - NASA Citizen Science for Earth Systems Program -Re-wilding urban environments: Integrating remote sensing and citizen science to study the environmental context and ecological consequences of returning avian predators
- 2014.06 – Senior Researcher
2015.11 *Center for Development Research (ZEF), University of Bonn, Germany*
Project manager for 'Mapping Forest Cover in Central Asia' supported by the Center for International Forestry Research (CIFOR) as part of CGIAR program on Forests, Trees and Agroforestry
- 2010.04 – Scientific Researcher (in German: wiss. Mitarb.)
2014.05 *Geomatics Lab, Geography Department, Humboldt-University Berlin, Germany*
Involved in land degradation monitoring using remote sensing in arid and semi-arid environment
- 2008.12– Research Assistant
2010.03 *Landscape Ecology and Land Use Lab, Peking University, Beijing, China*
Working for the Key Projects in the National Science & Technology Pillar Program funded by Ministry of Science and Technology of China (No. 2006BAD20B07)- National integrated ecological risk and food security research
- 2007.07– Research Assistant
2007.12 *United Nations Environment Programme (UNEP)*
Freshwater under threat: Vulnerability assessment of freshwater resources to environmental change - North East Asia. ISBN : 978-92-807-2948-1, Job Number : DEW/1101/BA

2006.09–	Research Assistant
2007.06	<i>The Key Laboratory for Environmental and Urban Sciences, Shenzhen Graduate School, Peking University, Shenzhen, China</i> Working for National Natural Science Foundation of China (NSFC) funded project (No. 40635028) – Urban landscape dynamics and its ecological impacts.

GRANTS AND SCHOLARSHIPS

2015	Grant by Robert Bosch Foundation
2014	Grant by the Center for International Forestry Research (CIFOR)
2014	Grant by Humboldt-Innovation
2013	Travel grant by International Office, Humboldt-University Berlin
2011	Travel grant by Humboldt-University Berlin
2008	Kwang-Hua Scholarship by Peking University
2005	First Prize Scholarship by Northeast Forestry University
2004	Second Prize Scholarship by Northeast Forestry University
2003	First Prize Scholarship by Northeast Forestry University

AWARDS

2008	Excellent volunteer of Beijing 2008 Olympic & Paralympic Games
2008	Advanced individual of student volunteers at social practices of Peking University
2006	Excellent Graduate in Heilongjiang Province
2004	First place in TK Competition Cup of Northeast Forestry University
2004	Second place in 9th National Scientific Competition Cup

PUBLICATIONS

Peer-reviewed journal articles

1. **Yin, H.**, Prishchepov, A., Bleyhl, B., Buchner, J., Kuemmerle, T., Radeloff, V.C. (*in preparation*). Annual land abandonment mapping using remote sensing time series
2. **Yin, H.**, Pflugmacher, D., Li, A., Li, Z.G., Hostert, P., (*submitted*): Land use and land cover change in Inner Mongolia – understanding the effects of China’s re-vegetation programs
3. **Yin, H.**, Khamzina, A., Pflugmacher, D., Martius, C. (2017): Forest cover mapping in post-Soviet Central Asia using multi-resolution remote sensing imagery. *Scientific Reports*. 7:1375.
4. Cai J.L. , Varis, O., **Yin, H.** (2017): China's water resources vulnerability: A spatio-temporal analysis during 2003-2013. *Journal of Cleaner Production*. 142: 2901-2910
5. Cai J.L. , **Yin, H.**, Varis, O., (2016): Impacts of industrial transition on water use intensity and energy-related carbon intensity in China: A spatio-temporal analysis during 2003-2012. *Applied Energy*. 183:1112-1122
6. Wang, R., Zhang, Y.Z., Wünnemann, B., **Yin, H.**, Xia, F., Zhou, L.F., Diekmann, B. (2015): Linkages between Quaternary climate change and sedimentary processes in Hala Lake, northern Tibetan Plateau, China. *Journal of Asian Earth Sciences*. 107: 140-150
7. **Yin, H.**, Pflugmacher, D., Kennedy, R.E., Sulla-Menashe, D. Hostert, P. (2014): Mapping annual land cover changes using MODIS time series. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*. 7(8): 3421-3427
8. Li, Z.G., Yang, P., Tang, H.J., Wu, W.B., **Yin, H.**, Liu, Z.H., Zhang, Li. (2014): Response of maize phenology to climate warming in Northeast China between 1990 and 2012. *Regional Environmental Change*. 14, 39-48.
9. Liu, X.Q., Wang, Y.L., Peng, J., Ademola, K.B., **Yin, H.** (2013): Assessing vulnerability to drought based on exposure, sensitivity and adaptive capacity: A case study in middle Inner Mongolia of China. *Chinese Geographical Science*, 1, 13-25
10. **Yin, H.**, Udelhoven, T., Fensholt, R., Pflugmacher, D., Hostert, P. (2012): How Normalized Difference Vegetation Index (NDVI) trends from Advanced Very High Resolution Radiometer (AVHRR) and Système Probatoire d’Observation de la Terre VEGETATION (SPOT VGT) time series differ in agricultural areas: An Inner Mongolian case study. *Remote Sensing*, 4, 3364-3389

11. **Yin, H.**, Li, Z.G., Wang, Y.L., Cai, F. (2011): Assessment of desertification using time series analysis of hyper-temporal vegetation indicator in Inner Mongolia. *Acta Geographica Sinica*, 66, 653-661
12. Li, Z.G., Tang, H.J., Yang, P., Zhou, Q.B., Wang, Y.L., Wu, W.B., **Yin, H.**, Zhang, L. (2011): Identification and application of seasonality parameters of crop growing season in Northeast China based on NDVI time series data. *Acta Scientiarum Naturalium Universitatis Pekinensis*, 47, 882-892
13. **Yin, H.**, Li, Z.G., Wang, Y.L. (2011): A review on the research progress of desertification assessment. *Chinese Journal of Plant Ecology*, 35, 345-352
14. Cai, J.L., **Yin, H.**, Huang, Yi. (2010): Ecological function regionalization: a review. *Acta Ecologica Sinica*, 30, 3018-3027
15. **Yin, H.**, Wang, Y.L., Cai, J.L. Lv, X.F., Liu, X.Q. (2009): Regional ecological risk assessment: Its research progress and prospect. *Chinese Journal of Ecology*, 28, 969-975
16. **Yin, H.**, Wang, Y.L., Peng, J. (2009): Variation analysis on precipitation and temperature in middle and upper reach of Yellow River Basin during 1956 to 2006. *Research of Soil and Water Conservation*, 16, 35-39
17. Huang, Y., Cai, J.L., **Yin, H.**, Cai, M.T. (2009): Correlation of precipitation to temperature variation in the Huanghe River (Yellow River) basin during 1957-2006. *Journal of Hydrology*, 372, 1-8
18. Peng, J., Wu, J.S., **Yin, H.**, Li, Z.G., Chang, Q., Mu, T.L. (2008): Rural land use change during 1986-2002 and its ecological effects in Lijiang, China, based on remote sensing and GIS. *Sensors*, 8, 8201-8223

PRESENTATIONS

1. **Yin, H.** Land-use and Land-cover Change in the Caucasus and the Chechen Wars. Center for Russia, East Europe, and Central Asia (CREECA) at the University of Wisconsin-Madison 2016 Fall Lecture Series
2. **Yin, H.**, Bleyhl, B., Buchner, J., Kuemmerle, T., Tan, B. and Radeloff, V. (2016): Land use and land cover change in the Caucasus Mountains after the collapse of the Soviet Union. *The Global Land Project 3rd Open Science Meeting*. October 2016, Beijing, China (Awarded for the Best Oral Presentation)
3. **Yin, H.**, Bleyhl, B., Buchner, J., Kuemmerle, T., Tan, B. and Radeloff, V. (2016): Land use change in the Caucasus and the Chechen Wars. *The NASA Land-Cover and Land-Use Change (LCLUC) Program Science Team Meeting*. April 2016, North Bethesda, USA
4. Gessesse, T.A., Khamzina, A., **Yin, H.**, and Amelung, W. (2015): Changes in land cover and ecosystem carbon stocks under integrated watershed management in Tigray, Ethiopia. *International Association for Landscape Ecology- German Chapter (IALE-D) Annual Conference*. October 2015, Bonn, Germany.
5. Kumar, N., Voigt, H., **Yin, H.**, and Yamac, S. (2015): Nexus of multi-disciplines for sustainable water resource management: concepts, interlinkages and models. *Sustainable Development Goals: A water perspective*. August 2015, Bonn, Germany.
6. **Yin, H.**, Haas, S., Martius, C., and Khamzina, A. (2015): Forest cover change between 2000 and 2014 in Central Asia. *The 8th International Workshop on the Analysis of Multi-temporal Remote Sensing Images*. July 2015, Annecy, France.
7. **Yin, H.**, Jacob, A., Martius, C., and Khamzina, A. (2015): Forest cover mapping in Central Asia using multiple-resolution imagery. *The 36th International Symposium on Remote Sensing of Environment*. May 2015, Berlin, Germany.
8. **Yin, H.**, Jacob, A., Martius, C., and Khamzina, A. (2014): Forest cover and land degradation mapping in Central Asia – Implications for carbon sequestration. *Climate Engineering Conference 2014*. August 2014, Berlin, Germany.
9. **Yin, H.**, Pflugmacher, D. Li, Z.G., and Hostert, P. (2014): Land use and land cover change in Inner Mongolia – understanding the effects of China’s re-vegetation programs. *2nd Global Land Project Open Science Meeting*. March 2014, Berlin, Germany.
10. Li, Z.G., **Yin, H.**, Yang, P., Tang, H.J., Wu, W.B., Chen, Z.X., Liu, Z.H., Tan, J.Y., and Zhang, L. (2014): Response of maize cropping system to climate warming in Northeast China in the past 30 years. *2nd Global Land Project Open Science Meeting*. March 2014, Berlin, Germany.
11. **Yin, H.**, Pflugmacher, D., and Hostert, P. (2014): Mapping annual land cover changes using MODIS time series. *Joint workshop of the EARSeL 5th Land Use & Land Cover Workshop and NASA LCLUC Science Team*. March 2014, Berlin, Germany.

12. **Yin, H.**, Pflugmacher, D. Li, Z.G., and Hostert, P. (2013): Assessing land degradation in Inner Mongolia using MODIS time series. The 7th *International Workshop on the Analysis of Multi-temporal Remote Sensing Images*. June 2013, Banff, Canada.
13. **Yin, H.**, Wang, Y.L., and Chang Q. (2007): A study on multi-scale effect of urban landscape pattern based on wavelet transform in Shenzhen. *The Xth China Landscape Ecology Congress*. September 2007, Beijing, China.

TEACHING EXPERIENCE

Graduate level

- 2011 Land System Science (Humboldt-University Berlin, lecture on time series analysis of remote sensing imagery)
- 2008 Landscape Ecological Planning and Design (Peking University, teaching assistant)

Undergraduate level

- 2008 Rural Geography (Peking University, teaching assistant)

PROFESSIONAL SERVICE

Reviewer for

- Applied Geography*
- Canadian Journal of Remote Sensing*
- IEEE Journal of Selected Topics in Earth Observation and Remote Sensing*
- International Journal of Remote Sensing*
- Journal of Arid Environments*
- Journal of Integrative Agriculture*
- Landscape Ecology*
- Nature - Scientific Reports*
- Remote Sensing*
- Remote Sensing Letters*
- Remote Sensing of Environment*
- Sustainability*

SKILLS

Computer skills and competences

Programming languages: IDL, R, Python, Fortran

Specialized software: ESRI (ArcMap, ArcInfo, ArcScene, ArcToolbox, ArcCatalog), ENVI, ERDAS, IDRISI

Mathematical technologies: Matlab, SPSS, Mathcad

Others: Microsoft Office™ tools (Word, Excel, Power Point, Publisher), Photoshop CS

Languages

Mother tongue(s) Chinese

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
German	B1	B1	A2	A2	A2
French	A1	A2	A1	A1	A1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
Common European Framework of Reference for Languages