

Curriculum vitae

Xiaoma Li

Postdoc Fellow, Urbanization & Global Change Group, Yale University

Address: 380 Edwards Street, Room 005, New Haven, CT

Email: xiaoma.li@yale.edu lxm733@gmail.com

Phone: (203) 432-5641

EDUCATION

- Ph.D. (Ecology): 2009.9- 2013.7
State Key Laboratory of Urban and Regional Ecology, Research Center for Eco-Environmental Sciences, CAS
Thesis: Urban landscape change and its ecological effects in Beijing
Supervisor: Prof. Zhiyun Ouyang
- M.S. (Silviculture): 2006.9-2009.7
Forestry College, Shenyang Agricultural University
- B.S. (Forest resource conservation and recreation): 2002.9-2006.7
Forestry College, Shenyang Agricultural University

RESEARCH INTERESTS:

- quantifying the spatial and temporal pattern of urban landscape,
- simulating and forecasting urban expansion
- understanding the ecological effects of urban landscape pattern

PROFESIONAL EXPERIENCES:

2013.1- Postdoc (Yale school of Forestry & Environmental studies)

2013.10- Postdoc (Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences)

2009.7-2013.7 Research Assistant (Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences)

- Mapped urban expansion in Beijing since 1750 using multiple sources data.
- Identified the driving factors of urban expansion in Beijing, and uncovered their spatial and temporal variation.
- Addressed the effects of spatial pattern of greenspace on land surface temperature and plant diversity in Beijing, and compared the relative importance of the effects of landscape configuration and landscape composition.
- Explored the effects of urban development history and landscape pattern on heavy metal concentration in residential soil in Beijing.
- Evaluated ecosystem service and proposed an ecosystem service conservation orientated land use plan in Beijing.

2006.7 – 2009.7 Research Assistant (Shenyang Agricultural University)

- Quantified spatial and temporal pattern of urban forest in Shenyang based on remote sensing images.
- Evaluated ecosystem service (carbon storage, carbon sequestration, air pollutant purification) of urban forest in Shenyang Using CITYgreen 5.0.
- Evaluated the accessibility and recreational pressure of urban forests in Shenyang using GIS based network analysis.

PARTICIPATED PROJECTS:

1. 2011.1-2014.12 “**Driving factors and regulating mechanisms of pattern and process changes of Beijing urban ecosystem**” State Key Program of National Natural Science Foundation of China (41030744).
2. 2009.1-2010.12 “**Spatial pattern of ecosystem service in Beijing**” Sponsored by Beijing Land Resource Bureau.
3. 2007.01-2009.12 “**Landscape pattern optimization of Shenyang’s urban forests based on GIS and network analysis**” National Natural Science Foundation of China (30600482).
4. 2005.01-2009.12 “**Response and feedback of urban forests to global climate change**” State Key Program of National Natural Science Foundation of China (90411019).
5. 2006.01-2008.12 “**Pattern and function of urban forests – A case study of**

Shenyang” Innovative Program of the Chinese Academy of Sciences
(kzcx3-sw-436).

PUBLICATIONS:

1. **Xiaoma Li**, Weiqi Zhou, Zhiyun Ouyang, 2013. Relationship between land surface temperature and spatial pattern of greenspace: What are the effects of spatial resolution? *Landscape and Urban Planning* 114: 1-8.
2. **Xiaoma Li**, Weiqi Zhou, Zhiyun Ouyang, 2013. Forty years of urban expansion in Beijing: What is the relative importance of physical, socioeconomic, and neighborhood factors? *Applied Geography* 38: 1-10.
3. **Xiaoma Li**, Weiqi Zhou, Zhiyun Ouyang, Weihua Xu, Hua Zheng, 2012. Spatial pattern of greenspace affects land surface temperature: evidence from the heavily urbanized Beijing metropolitan area. *Landscape Ecology* 27(6): 887-898.
4. Changfu Liu, **Xiaoma Li**, 2012. Carbon storage and sequestration by urban forests in Shenyang, China. *Urban Forestry & Urban Greening* 11(2): 121-128.
5. Weiqi Zhou, Weifeng Li, **Xiaoma Li**, Lijian Han. Relations between land cover and the surface urban heat island: seasonal variability and effects of spatial and thematic resolution of land cover data on predicting land surface temperatures. *Landscape Ecology*. (Accepted).
6. Yang Bai, Zhiyun Ouyang, Hua Zheng, **Xiaoma Li**, Changwei Zhuang, Bo Jiang, 2012. Modeling soil conservation, water conservation and their tradeoffs: A case study in Beijing. *Journal of Environmental Sciences* 24(3): 419-426.
7. Chi Peng, Zhiyun Ouyang, Meie Wang, Weiping Chen, **Xiaoma Li**, John C. Crittenden, 2013. Assessing the combined risks of PAHs and metals in urban soils by urbanization indicators. *Environmental Pollution* 178: 426-432.
8. Zhiyun Ouyang, **Xiaoma Li**, Weihua Xu, Yushan Li, Hua Zheng, Xiaoke Wang. Ecological land use planning and management in Beijing. *Acta Ecologica Sinica*, (Accepted) (in Chinese with English Abstract).
9. **Xiaoma Li**, Changfu Liu, 2009. Accessibility and service of Shenyang’s urban parks by network analysis. *Acta Ecologica Sinica*, 29(3):1554-1562 (in Chinese with English Abstract).
10. **Xiaoma Li**, Changfu Liu, Wei Wu, 2009. Recreational pressure of urban parks in Shenyang. *Chinese Journal of Ecology*, 28(5): 992-998 (in Chinese with English Abstract).

11. **Xiaoma Li**, Changfu Liu, 2009. Grain size effect on landscape pattern indices-A case study of Shenyang urban forest. *Journal of Northwest Forestry University*, 24 (2): 166-170 (in Chinese with English Abstract).
12. Changfu Liu, **Xiaoma Li**, Dong Han, 2010. Accessibility analysis of urban parks: methods and key issues. *Acta Ecologica Sinica*, 30(19):5381-5390 (in Chinese with English Abstract).
13. Changfu Liu, **Xiaoma Li**, Guo Rui, 2007. Forest landscape pattern analysis in different districts of Shenyang. *Journal of Liaoning Forestry Science & Technology*, (3): 4-6 (in Chinese with English Abstract).
14. Changfu Liu, Jingze Li, **Xiaoma Li**, Xingyuan He, Wei Chen, 2009. Selection of landscape metrics for urban forest based on simulated landscapes, *Chinese Journal of Applied Ecology*, 20(5):1125-113 (in Chinese with English Abstract).
15. Changfu Liu, Dongmei Lü, **Xiaoma Li**, 2009. Urban forest landscape pattern of Shenyang City based on QuickBird images. *Journal of Northeast Forestry University*, 37(7):52-57 (in Chinese with English Abstract).
16. Changfu Liu, Ran Sun, **Xiaoma Li**, Xingyuan He, Wei Chen, 2009. Dynamic change of landscape pattern of Shenyang urban forests based on RS and GIS. *Journal of Northeast Forestry University*, 37(4):13-15 (in Chinese with English Abstract).
17. Changfu Liu, Shuang Zhao, Ling Li, **Xiaoma Li**, Xingyuan He, Wei Chen, 2008. Difference analysis of carbon fixation and pollution removal of urban forest in Shenyang. *Journal of Northwest Forestry University*, 23(4): 56-61 (in Chinese with English Abstract).

CONFERENCE PRESENTATIONS:

1. **Xiaoma Li**, Weiqi Zhou, Zhiyun Ouyang. Spatial pattern of greenspace affects land surface temperature: evidence from the heavily urbanized Beijing metropolitan area, China. *The 8th International Association for Landscape Ecology (IALE) world congress*. August 18-23, 2011 Beijing, China (Oral presentation)
2. **Xiaoma Li**, Weiqi Zhou, Zhiyun Ouyang. Relationship between land surface temperature and spatial pattern of greenspace: what are the effects of spatial resolution? *The Second International Workshop on Earth Observation and*

Remote Sensing Applications (EORSA 2012). June 8-11, 2012 Shanghai, China

(Oral presentation)

JOURNAL REVIEWER

Landscape Ecology, Urban Climate, Applied Geography, Cities, Land Use Policy

HONORS AND AWARDS:

1. **China Science Group Environment Protection Scholarship**, granted by Chinese Academy of Sciences Graduate Education Foundation (2013)
2. **National Graduate Student Scholarship**, granted by Ministry of Education of the People's Republic of China (2012)
3. **Liang Xi Talented Student Awards**, granted by Chinese Society of Forestry (2009).
4. **Gu Weilian Memorial Scholarship**, granted by Shenyang Agricultural University (2009).