Yue Li, Ph.D.

Postdoc in Department of Earth System Science, University of California, Irvine

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Education

Ph.D.	Physical Geography, **Peking University**, Beijing, China
Sep 2014 – Jul 2019	**Thesis**: Spatiotemporal variations in global land surface albedo and its feedback to climate, supervised by **Prof. Shilong Piao**
B.A.	Geography Science, **Wuhan University**, Wuhan, China
Sep 2010 – Jun 2014	**Thesis:** Spatial patterns of climatological temperature lapse rate in China

Research Experiences

Postdoc Research

2019—present

Department of Earth System Science, University of California, Irvine, USA
Adviser: Dr. James T. Randerson

- Simulation and analysis of the tropical deforestation influence on the dust transport from North Africa to the Amazon.

- Analysis of the output from the Land Use Model Intercomparison Project (LUMIP)

This work yields two manuscript that is in preparation for potential publication in peer-reviewed journals.

Doctoral Research

2014—2019

Sino-French Institute for Earth System Sciences, College of Urban and Environmental Sciences, Peking University, Beijing, China
Adviser: Dr. Shilong Piao

- Systematical assessment on the biophysical climate impacts of Chinese large-scale afforestation and vegetation greening over the past three decades

- Coupling a land surface model (ORCHIDEE) with an atmospheric model (LMD), simulating the biophysical impact on climate from Chinese large-scale afforestation and vegetation greening over the past three decades.

- Optimization of forest physiological parameters in a terrestrial ecosystem model, ORCHIDEE, using eddy-covariance carbon and water flux data from 6 forest sites in China.

- Development of Chinese forest distribution maps from 1982 to 2011 through combining spatial information from 1:1,000,000 Chinese vegetation map and temporal information from forest inventory data.

- Evaluating bias and diagnosing its causes in simulated land surface albedo from CMIP5 global climate models

Visiting Student Research Oct 2017—Apr 2018

Le Laboratoire de Météorologie Dynamique (LMD), Paris, France
Adviser: Dr. Laurent Li

- Sensitivity simulations of global climate to change in land surface albedo using the coupled land-atmosphere model (LMD+ORCHIDEE).

Visiting Student Research Aug—Oct 2015

CSIRO Marine and Atmospheric Research, Melbourne, Australia
Adviser: Dr. Yingping Wang

- Coupling a terrestrial ecosystem model (CABLE) with an atmosphere model (UM) in ACCESS global climate model, to simulate the climate response to Earth's greening.

Teaching Experiences

Certificate on Course Design Aug 2020

DTEI (Division of Teaching Excellence and Innovation in UC Irvine) certificate program on course design. In this program, I've designed the syllabus for my own future course "Earth System Data Analysis".

Teaching Assistant 2017 Fall, 2018 Spring

Ecology for undergraduate student given by Prof. Shilong Piao; My duty is helping the students learn basic excel analysis of the climate and remote sensing vegetation data, and map them using ArcGIS.

Research Interests & Area of Expertise:

Climate change and feedback, watery cycle, energy balance & biogeochemical cycles

Remote sensing, GIS, land-atmosphere coupling, Climate & Earth system modeling

Journal Publications **(For full record please visit Dr. Yue Li's Google Scholar profile: https://scholar.google.com/citations?user=yXPbKtkAAAAJ&hl=en)**

Li Y, Piao S*, Chen A, Ciais P, Li LZX. (2020) Local and teleconnected temperature effects of afforestation and vegetation greening in China. ***National Science Review*** 7(5), doi:10.1093/nsr/nwz132

Li Y, Piao S*, Li LZX, Chen A, Wang X, Ciais P, Huang L, Lian X, Peng S, Zeng Z, Wang K, Zhou L. (2018) Divergent hydrological response to large-scale afforestation and vegetation greening in China. ***Science Advances***, 4(5) doi:10.1126/sciadv.aar4182

Li Y, Zeng Z*, Huang L, Lian X, Piao S. (2018) Comment on "Satellites reveal contrasting responses of regional climate to the widespread greening of Earth". ***Science*** 360(6394) doi:10.1126/science.aap7950

Li Y, Yang H, Wang T, MacBean N, Bacour C, Ciais P, Zhang Y, Zhou G, Piao S*. (2017) Reducing the uncertainty of parameters controlling seasonal carbon and water fluxes in Chinese forests, and its implication for simulated climate sensitivities. ***Global Biogeochemical Cycles*** 31(8), 1344-1366 doi:10.1002/2017gb005714

Li Y, Wang T*, Zeng Z, Peng S, Lian X, Piao S*. (2016) Evaluating biases in simulated land surface albedo from CMIP5 global climate models. ***Journal of Geophysical Research: Atmospheres*** 121(11), 6178-6190 doi:10.1002/2016JD024774

Li Y, Zeng Z, Zhao L, Piao S*. (2015) Spatial patterns of climatological temperature lapse rate in mainland China: A multi-time-scale investigation. ***Journal of Geophysical Research: Atmospheres*** 120(7), 2661-2675 doi:10.1002/2014JD022978

Work in Progress

Li Y, Randerson J, et al. (2020) **Biophysical amplification of tropical deforestation accelerates the vegetation carbon loss** (manuscript in preparation).

Li Y, Randerson J, Mahowald N, Lawrence P. (2020) **Deforestation strengthens dust transport from North Africa to the Amazon** (manuscript in preparation).

Academic Activities

Reviewer for Peer-Reviewed Journals

Agriculture, Ecosystems and Environment; Philosophical Transactions of the Royal Society B: Biological Sciences; Journal of Geophysical Research: Biogeosciences; Agricultural and Forest Meteorology; Science Bulletin

Workshops & Conferences

Mar 2020 NCAR land & BGC working group meeting
Nov 2019 E3SM Annual meeting
Sep 2019 RUBISCO-AmeriFlux workshop
Apr 2018 EGU Meeting
Dec 2015, 2016, 2018 AGU Fall Meeting, poster

Presentations & Talks:

Jul 2020 **Invited talk** for GeoInsider, a group formed by GeoScience colleagues who focus on the most cutting-edge researches in geoscience, on topic "Biophysical Climate Effects of Afforestation and Vegetation Greening in China from 1982 to 2011", hosted by Dr. Yelu Zeng

Mar 2020 **Invited talk** in Department of Biology, Colorado State University, on topic "Afforestation in China and its Biogeophysical Feedbacks to the Climate and Water Cycles", hosted by Dr. Anping Chen

Mar 2020 **Oral presentation** in NCAR land & BGC working group meeting, on topic "Deforestation strengthens the dust transport from the Sahara to the Amazon", hosted by NCAR land & BGC team

Awards & Grants

Dec 2018 **National Scholarship (top 0.2%)**
The Ministry of Education of the People's Republic of China (The highest level of scholarship set by the Chinese government)

(Sep 2014 – Aug 2016, Sep 2018 – Aug 2019) **Principal's PhD student Scholarship (top 6%)**
Peking University

Dec 2014 **Excellent Bachelor's Thesis in Hubei Province (top 4%)**
Hubei Provincial Department of Education

Skills & Activities

Analysis Tools	MATLAB, NCAR Command Language (NCL), Linux Shell, ArcGIS, ENVI (a little, including a little Python & IDL)
Climate Models	CESM (CLM5, CAM6), IPSL-CM (ORCHIDEE, LMDz)
Languages	Mandarin, English, French (A2)