

## Jie Dai

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### EDUCATION

Ph. D., Geography, University of California, Santa Barbara/San Diego State University (Expected in 2020)  
Committee: Drs. Li An (Chair), Dar Roberts, Douglas Stow, and Phaedon Kyriakidis.  
M. S., Natural Resources and Environment, University of Michigan, Ann Arbor, 2013  
B. S., Spatial Informatics and Digitized Technology, Wuhan University, China, 2011

### PUBLICATIONS

#### Peer-reviewed Journal Articles

##### *Published/ Accepted*

Dai, J., D. Roberts, P. Dennison, and D. Stow (2018). Spectral-radiometric differentiation of non-photosynthetic vegetation and soil within Landsat and Sentinel 2 wavebands. *Remote Sensing Letters* 9(8): 733-742.

##### *In Review/ Revision*

An, L., C. Battle, J. Dai, R. Lewison, N. Carter, P. Jankowski, D. Ghimire, J. Karki, M. Dhakal, and A. Zvoleff (in revision). Sex-specific habitat suitability models of *Panthera tigris* in Chitwan National Park, Nepal: Broader conservation implications.

Dai, J., S. Yang, R. Bilsborrow, L. Shi, W. Zhang, M. Wang, and L. An (in revision). Neighborhoods effects on individual out-migration decisions in Fanjingshan National Nature Reserve, China.

Dai, J., D. Roberts, D. Stow, L. An, and P. Kyriakidis (in review). Mapping the spatial extent of understory *Mikania micrantha* with phenological and textual metrics generated from in-situ spectral measurements and remotely-sensed imagery.

##### *In Preparation (to be submitted before graduation)*

Clark, M., Q. Zhao, A. Sullivan, S. Yabiku, A. York, D. Ghimire, L. An, J. Dai, S. Murphy, and S. Hall (in preparation). Ecological and social drivers of invasive plant (*Mikania micrantha*) establishment and spread in a biodiversity hotspot in subtropical Nepal.

Dai, J., D. Roberts, D. Stow, L. An, and P. Kyriakidis (in preparation). Agricultural expansion, urbanization and community forestry: Forty years of land cover and use change in the Chitwan District, Nepal.

Dai, J., L. An, D. Roberts, D. Stow, and P. Kyriakidis (in preparation). Agent-based simulation of *Mikania micrantha* invasion and coupled human and natural dynamics in Chitwan Valley, Nepal.

### Book Chapters

- Dai, J., and L. An (2018). Time Geography. In Huang, B. (Ed.), *Comprehensive Geographic Information Systems*, Vol. 1, pp. 303-312. Oxford: Elsevier. <http://dx.doi.org/10.1016/B978-0-12-409548-9.09625-1>
- An, L., and J. Dai (2017). Space-time Analysis. In Lin, H., X. Shi, X. Ye, and Y. Guan (Ed.), *Frontiers in Geographic Information Science* (in Chinese). Beijing: Advanced Education Press.

### Conference Paper

- Zhao, Q., E. Wentz, S. Fotheringham, S. Yabiku, S. Hall, J. Glick, J. Dai, M. Clark, and H. Heavenrich (2016). Semi-parametric geographically weighted regression (S-GWR): A case study on invasive plant species distribution in subtropical Nepal. *The 9<sup>th</sup> International Conference on Geographic Information Science*, 396-399.

### **AWARDS**

- NASA Earth and Space Science Fellowship (2017-2020)
- ASPRS Pacific Southwest Region Scholarship (2019)
- William & Vivian Finch Scholarship in Remote Sensing (2018-2019)
- Graduate Student Travel Fund, Department of Geography, San Diego State University (2018 & 2019)
- ASD Goetz Instrument Student Support Program, Malvern Panalytical (2018)
- Free lease of FieldSpec 4 Spectroradiometer
- Inamori Fellowship (2017-2018)
- Geography Department Citizenship Award, San Diego State University (2017)

### **TEACHING EXPERIENCES**

#### San Diego State University, Principal Instructor

GEOG 370 Conservation Science and Policy (Fall 2017)

Teaching evaluation (31 students): Mean: 4.67/5; St. Dev.: 0.56; Median: 5/5

#### San Diego State University, Guest Lecturer

GEOG 106 World Regional Geography: "East Asia" (Fall 2017)

GEOG 585 Quantitative Methods in Geographic Research: "Logistic Regression" (Spring 2018)

GEOG 688L Advanced Remote Sensing: "Multiple Endmember Spectral Mixture Analysis" (Fall 2017, 2019)

#### San Diego State University, Teaching Associate (Fall 2015 – Spring 2018)

GEOG 101 Earth's Physical Environment

GEOG 104 Geographical Information Science

GEOG 385 Spatial Data Analysis

GEOG 409 Global Climate Change

GEOG 506 Landscape Ecology

GEOG 585 Quantitative Methods in Geographic Research

#### University of Michigan, Graduate Student Instructor (Winter 2013)

NRE 531 Principles of GIS

## **PRESENTATIONS**

- 2019 Urbanization, Protected National Park, and Community Forestry: Land Cover Change in Chitwan, Nepal, 1988-2018 (AAG Annual Meeting, Washington D.C.)
- 2018 Spectral-radiometric differentiation of non-photosynthetic vegetation and soil within Landsat and Sentinel 2 wavebands (ASPRS Annual Meeting, Denver, CO)
- 2015 The Potential for Detecting the Invasion of *Mikania micrantha* through Remote Sensing Imagery in Chitwan Community Forests, Nepal (Geography Colloquium, UCSB)
- 2014 Linking Forest Health with Vulnerability to an Invasive Plant Species: A Case Study in Chitwan, Nepal (AAG Annual Meeting, Tampa, FL)
- 2013 Landsat Spectral Responses to Grassland Biophysical Conditions Across a Gradient in Inner Mongolia, China (SNRE Capstone Conference, Ann Arbor, MI)

## **ACADEMIC SERVICES**

- ASPRS Student Chapter President: San Diego State University (2018-2019)
- Doctoral Student Representative: Department of Geography, San Diego State University (2016 - 2017)
- AAG Annual Meeting Paper Session Chair: 5566 Land Use and Land Cover Change (2014)
- Track Leader: Environmental Informatics, School of Natural Resources and Environment, University of Michigan, Ann Arbor (2012 - 2013)

## **PROFESSIONAL AFFILIATIONS**

- American Association of Geographers (AAG)
- American Society for Photogrammetry and Remote Sensing (ASPRS)
- American Geophysical Union (AGU)