

# Kellie Uyeda

Department of Geography, San Diego State University  
Tijuana River National Estuarine Research Reserve

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<http://geog.sdsu.edu/People/Pages/uyeda/uyeda.html>

<https://scholar.google.com/citations?user=9McwWVMAAAAJ&hl=en>

## Research Interests

Biogeography, landscape ecology, remote sensing of vegetation, fire ecology, multi-temporal remote sensing, invasion biology

## Education

San Diego State University / University of California, Santa Barbara

PhD in Geography, August 2015, GPA: 4.0

Dissertation: “Spatial and temporal variation in biomass accumulation in southern California chaparral”

San Diego State University

M.S. in Ecology, May 2010, GPA: 3.82

Thesis: “Abiotic limitation of invasive plants in the high salt marsh transition zone”

Certificate in GIS, May 2010 (joint Geography and Computer Science program)

University of California, San Diego

B.S. in Environmental Systems, emphasis in Ecology, Behavior and Evolution, June 2006  
GPA: 3.25

## Refereed Publications

**Uyeda K.A.**, Stow D.A., Roberts D.A., & Riggan P.J. 2017. Combining ground-based measurements and MODIS-based spectral vegetation indices to track biomass accumulation in post-fire chaparral. *International Journal of Remote Sensing* 38: 728-741.

<http://doi.org/10.1080/01431161.2016.1271477>

Schmidt I.T., O’Leary J.F., Stow D.A., **Uyeda K.A.**, & Riggan P.J. 2016. Use of ultra-high resolution aerial imagery in the estimation of chaparral wildfire fuel loads. *Environmental Monitoring and Assessment* 188: 697.

<http://doi.org/10.1007/s10661-016-5656-x>

**Uyeda K.A.**, Stow D.A., O’Leary J.F., Tague C.L., & Riggan P.J. 2016. Chaparral growth ring analysis as an indicator of stand biomass development. *International Journal of Wildland Fire* 25: 1086-1092.

<http://doi.org/10.1071/WF16080>

**Uyeda K.A.**, Stow D.A., O’Leary J.F., Schmidt I.T., & Riggan P.J. 2015. Spatial variation of fuel loading within varying aged stands of chaparral. *Applied Vegetation Science* 19: 267–279.

<http://doi.org/10.1111/avsc.12209>

Data available at US Forest Service Research Data Archive: <https://doi.org/10.2737/RDS-2017-0021>

**Uyeda, K.A.**, Stow, D.A., & Riggan, P.J. 2015. Tracking MODIS NDVI time series to estimate fuel accumulation. *Remote Sensing Letters* 6: 587–596.

<http://doi.org/10.1080/2150704X.2015.1063736>

Chen, X., Emery, N., Garcia, E.S., Hanan, E.J., Hodges, H.E., Martin, T., Meyers, M.A., Peavey, L.E., Peng, H., Santamaria, J.S., **Uyeda, K.A.**, Anderson, S.E., & Tague, C. 2013. Perspectives on disconnects between scientific information and management decisions on post-fire recovery in western US. *Environmental Management* 52: 1415–1426.

<http://dx.doi.org/10.1007/s00267-013-0165-y>

**Uyeda, K.A.**, Deutschman, D.H., & Crooks, J.A. 2013. Abiotic limitation of non-native plants in the high salt marsh transition zone. *Estuaries and Coasts* 36: 1125–1136.

<http://dx.doi.org/10.1007/s12237-013-9640-1>

### **Manuscripts Prepared for or Submitted to Refereed Journals**

Snavely, R.A., **Uyeda, K.A.**, O’Leary, J.F., Stow D.A., Lambert, J., Bolick, L., O’Connor, K., Munson, B., & Zink, T. submitted. Vegetation and land cover mapping of San Clemente Island: A semi-automated and object-based approach. *Western North American Naturalist*

Snavely, R., Stow, D.A., **Uyeda, K.A.**, O’Leary, J.F. in preparation. Mapping vegetation community types in a highly disturbed landscape: integrating hierarchical object-based image analysis with digital surface models, to be submitted to the *International Journal of Remote Sensing*

**Uyeda, K.A.**, Johnson, H., & Grulke, N.E. in preparation. Mapping of vegetation drought response in the western US with MODIS imagery and Google Earth Engine

### **Teaching Experience**

Lab teaching assistant, SDSU, two labs in Dr. Doug Stow’s graduate seminar, Advanced Remote Sensing and Laboratory. Generated original content and taught lab titled “NDVI Phenology and Growth using Timesat”, and generated original content for lab titled “Vegetation growth form classification using eCognition” (September 2014)

Teaching associate (Instructor of Record), SDSU, Intermediate Remote Sensing of the Environment (Spring 2014 semester)

Lab teaching assistant, SDSU, taught the vegetation mapping exercise for Dr. Doug Stow's class, Remote Sensing of the Environment (October 2013)

Guest lecturer, SDSU, two class sessions in Dr. Doug Stow's class, Intermediate Remote Sensing of the Environment. Covered lecture topics "Geometric processing" and "Thermal infrared systems and applications" (February - March 2013)

Guest lecturer, SDSU, two class sessions in Dr. Allen Hope's class, World on Fire. Generated original content for the lectures, titled "Wildfire modeling in chaparral" and "Remote sensing of fuels in southern California chaparral" (November 2012)

Lab teaching assistant, SDSU, redesigned and taught the vegetation mapping exercise for Dr. Doug Stow's class, Remote Sensing of the Environment (October 2010)

Teaching assistant, SDSU, General Biology Lab (Fall 2007 - Spring 2008 semesters)

### **Research and Work Experience**

Postdoctoral scholar, SDSU, San Clemente island vegetation mapping Project (January 2016 – present, part-time)

Research associate, Tijuana River National Estuarine Research Reserve (January 2016 – present, part-time)

Postdoctoral scholar, Contract with USDA Forest Service through SDSU Research Foundation to produce a web map of satellite imagery based metrics of the drought across the western United States: [usda-drought.appspot.com/](http://usda-drought.appspot.com/) (September 2016 - June 2017)

Postdoctoral scholar, Contract with USDA Forest Service through SDSU Research Foundation to map satellite imagery based metrics of the California drought (September 2015 - December 2015)

Graduate research assistant, SDSU Geography Department (August 2010 - December 2013, June 2014 - Dec 2014)

Research field assistant, SDSU Biology Department, Multiple Species Conservation Plan monitoring (spring of 2007 - 2009)

Research associate, Tijuana River National Estuarine Research Reserve, (July 2006 - August 2010)

Intern, UCSD, Tijuana River National Estuarine Research Reserve, (October 2005 - June 2006)

### **Technical Reports**

Dougherty, S, **Uyeda, K.A.**, Litke, D., & Peregrin, C. 2011. Border Field State Park Southern Boundary Habitat Monitoring Program, September 2009 – June 2011

Crooks, J & **Uyeda, K.A.**, 2010. The Physical, Chemical, and Biological Monitoring of the Los Peñasquitos Lagoon, Annual Report, July 1, 2009- June 30, 2010, Prepared for the Los Peñasquitos Lagoon Foundation

### **Research Grant**

NOAA National Estuarine Research Reserve Graduate Research Fellow, “Using soil salinity and soil moisture to inhibit invasive species at the upland-high marsh ecotone” \$40,000, June 2008 - May 2010

### **Awards**

SDSU Graduate Student Travel Fund Award (\$500, spring 2014)

William and Vivian Finch Scholarship in Remote Sensing (\$4025, spring 2013)

Department of Geography Citizenship Award (\$715, spring 2013)

### **Presentations**

Coulter, L., **Uyeda, K.A.**, Stow, D.A., Implementation of a new spectral index within Google Earth Engine for automated forest loss assessment, Pecora 20, to be presented Nov 2017

**Uyeda, K.A.**, Tracking biomass accumulation in southern California chaparral with remote sensing and ground-based measurements, Natural Areas Conference, Oct 2016

**Uyeda, K.A.**, Spatial and temporal variation in biomass accumulation in southern California chaparral, Colloquium presented to the Department of Geography, San Diego State University, Sept 2015

**Uyeda, K.A.**, Tracking changes in species composition and biomass in southern California chaparral, American Society for Photogrammetry and Remote Sensing Annual Conference, March 2014

**Uyeda, K.A.**, Characterizing chaparral biomass accumulation based on MODIS NDVI time series, American Association of Geographers Annual Meeting, April 2013

**Uyeda, K.A.**, Stow, D.A., Characterizing chaparral biomass accumulation using a time series of satellite imagery, Student Research Symposium, San Diego State University, March 2013

**Uyeda, K.A.**, Stow, D.A., Characterizing vegetation accumulation patterns in a chronosequence of San Diego chaparral vegetation, MEDECOS XII Conference, Sept 2011

**Uyeda, K.A.**, Abiotic limitation of invasive plants in the high salt marsh transition zone, Student Research Symposium, San Diego State University, March 2010

**Uyeda, K.A.**, Current status of vegetation type conversion in the Los Peñasquitos Lagoon, Los Peñasquitos Lagoon Symposium, Dec 2009

**Uyeda, K.A.**, Invasive plants at the edge of the salt marsh, Tijuana River National Estuarine Research Reserve Saturday Speaker Series, Nov 2009

**Uyeda, K.A.**, Deutschman, D.H., & Crooks, J.A., Abiotic limitation of invasive plant species in the upland – high salt marsh, Coastal and Estuarine Research Federation Conference, Nov 2009 (poster)

### **Service to Community**

Reviewed for: GIScience & Remote Sensing (2017), Madroño (2017), Diversity and Distributions (2016), Springer's Environmental Series (2016), Progress in Physical Geography (2013)

SDSU Department of Geography Ph.D. representative (May 2013 – May 2014)

American Society for Photogrammetry and Remote Sensing, SDSU student chapter, Vice President (May 2013 – May 2014)

Supporting Women in Geography at SDSU, Secretary (May 2013 – May 2014)

Brown bag workshop coordinator, San Diego State University (Aug 2012 – May 2013)

Volunteer Hazard Mapping Corp, San Diego State University (2010 – 2014)