

Dr. Kristine Taniguchi-Quan

Hydrologist

Biology Department

Southern California Coastal Water Research Project

Education

Ph.D., geography, San Diego State University / University of California, Santa Barbara, 2018.

M.S., geography, San Diego State University, 2014.

B.S., environmental Science, watershed Science, San Diego State University, 2011.

Professional Experience

Scientist, Southern California Coastal Water Research Project (SCCWRP), Costa Mesa, CA. 2018-present.

Teaching Associate, San Diego State University, San Diego, CA. 2014-2018.

Graduate Research Assistant, San Diego State University, San Diego, CA. 2012-2014.

Laboratory Assistant, Southern California Coastal Water Research Project (SCCWRP), Costa Mesa, CA. 2013.

Hydrological Research Fellow, Edna Bailey Sussman Foundation, San Diego, CA. 2012.

Hydrological GIS Intern, SDSU Research Foundation, San Diego, CA. 2011.

Education Intern, Aquarium of the Pacific, Long Beach, CA. 2009.

Honors and Awards

American Society for Photogrammetry & Remote Sensing (ASPRS) – Rising Star Award, 2018.

American Society for Photogrammetry & Remote Sensing (ASPRS) Pacific Southwest Region –

Geospatial Student Scholarship, 2018.

American Society for Photogrammetry & Remote Sensing (ASPRS) Pacific Southwest Region - Event Funding Award, 2018.

Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI) Student Travel Grant - Sensor Network Bootcamp in an Urban Environment, 2017.

California State University Council on Ocean Affairs, Science & Technology (COAST) Graduate Student Research Award, 2017.

SDSU Inamori Fellowship, 2016-2017.

SDSU Graduate Student Association (GSA) Academic Achievement Award, 2016.

California State University Council on Ocean Affairs, Science & Technology (COAST) Travel Award, 2016.

SDSU Vivian Finch Latin American Research Award, 2015.

SDSU McFarland Geography Scholarship, 2015.

SDSU Student Research Symposium Library Research Excellence Award, 2015.

SDSU Teaching Associateship, 2014-2018.

California State University Sally Casanova California Pre-Doctoral Scholar, 2013-2014.

SDSU Graduate Assistantship, 2012-2014.

Edna Bailey Sussman Foundation Graduate Summer Research Award, 2012.

SDSU Dean's List Semester Honors, 2008-2011.

Selected Presentations and Conference Proceedings

Taniguchi-Quan, K.T., E. Stein, S. Yarnell, J. Zimmerman, S. Sandoval Solis, B. Lane, J. Howard, T. E. Grantham, A. Obester, R. Lusardi. 2019. A coordinated approach for developing statewide environmental flow regulations in California. American Fisheries Society and The Wildlife Society Joint Annual Conference. Reno, NV.

Taniguchi-Quan, K.T. California Environmental Flows Framework: Striking the balance between ecological and human water uses. 2019. SDSU Geography Department Colloquium Seminar. San Diego, CA.

Taniguchi-Quan, K.T., S. Maguire, E.D. Stein. 2019. Establishing environmental flows for the Los Angeles River. Upper Los Angeles River and Tributaries (ULART) Working Group. Los Angeles, CA.

Taniguchi, K., T. Biggs, E. Langendoen, C. Castillo, N. Gudino, D. Liden, R. Bingner, and Y. Yuan. 2017. The application of 3-D Structure-from-Motion (SfM) techniques and CONCEPTS channel evolution model to simulate stream channel instability downstream of hardpoints in a rapidly urbanizing, semi-arid region of Tijuana, Mexico. American Association of Geographers (AAG) Annual Meeting. Boston, MA.

Taniguchi, K. and T. Biggs. 2017. Stream channel erosion in a rapidly urbanizing region of the USMexico Border: Documenting the importance of channel hardpoints with Structure-from-Motion. SDSU Student Research Symposium. San Diego, CA.

Taniguchi, K., T. Biggs, N. Gudino, E. Langendoen, C. Castillo, R. Bingner, E. Taguas, D. Liden, and Y. Yuan. 2017. Los Laureles Canyon Sediment Modelling. Tijuana River Valley Recovery Team Meeting. San Diego, CA.

Taniguchi, K., T. Biggs, E. Langendoen, C. Castillo, N. Gudino, Y. Yuan, and D. Liden. 2016. Channel erosion in a rapidly urbanizing region of Tijuana, Mexico: Enlargement downstream of channel hardpoints. European Geosciences Union (EGU) General Assembly. Vienna, Austria.

Taniguchi, K., T. Biggs, E. Langendoen, N. Gudino, Y. Yuan, and D. Liden. 2016. Channel stability and erosion in a rapidly urbanizing region of the US-Mexico Border: Importance of channel hardpoints. American Association of Geographers (AAG) Annual Meeting. San Francisco, CA.

Taniguchi, K., N. Gudino, T. Biggs, C. Castillo, E. Langendoen, R. Bingner, E. Taguas, D. Liden, and Y. Yuan. 2015. Hydrology and sediment budget of Los Laureles Canyon, Tijuana, MX: Modelling channel, gully, and rill erosion with 3D photo-reconstruction, CONCEPTS, and AnnAGNPS. European Geosciences Union (EGU) General Assembly. Vienna, Austria.

Taniguchi, K. and T. Biggs. 2015. Regional impacts of urbanization on stream channel geometry: Importance of watershed area and channel particle size. SDSU Student Research Symposium. San Diego, CA. [Won Library Research Excellence Award]

Taniguchi, K. 2014. 3-D Photo-reconstruction and the use of a GoPro® to create point clouds and digital terrain models. American Society of Photogrammetry and Remote Sensing (ASPRS) SDSU Student Chapter Technical Workshop. San Diego, CA.

Taniguchi, K., T. Biggs, and C. Castillo. 2014. Sediment budgets and hydrology of Goat Canyon, Tijuana: Towards impact assessment and mitigation. Tijuana River Watershed Technical Workshop 2014, San Diego, CA.

Taniguchi, K. and T. Biggs. 2013. Remote sensing for historical timeseries of change: A case study in Los Penasquitos Creek, San Diego. County of San Diego's Technical Advisory Committee Meeting for the Hydromodification Management Plan (HMP). San Diego, CA.

Taniguchi, K. and T. Biggs. 2013. Urbanization and stream channel erosion in San Diego County: The use of remote sensing to estimate stream channel geometry. SDSU Student Research Symposium (poster). San Diego, CA.

Journal Articles

Gudino-Elizondo, N., T.W. Biggs, R.L. Bingner, E.J. Langendoen, T. Kretzschmar, E.V. Taguas, K.T. Taniguchi-Quan, D. Liden, Y. Yuan. 2019. Modelling Runoff and Sediment Loads in a Developing Coastal Watershed of the US-Mexico Border. *Water* 11:1024.

Gudino, N., T. Biggs, R. Bingner, Y. Yuan, E. Taguas, E. Langendoen, K. Taniguchi, T. Kretzschmar, and D. Liden, 2018. Modeling ephemeral gully erosion from unpaved urban roads: Equifinality and implications for scenario analysis. *Geosciences*, 137(8).
<https://doi.org/10.3390/geosciences8040137>

Gudino, N., T. Biggs, R. Bingner, C. Castillo, E. Langendoen, K. Taniguchi, T. Kretzschmar, Y. Yuan, and D. Liden, 2018. Measuring Ephemeral Gully Erosion Rates and Topographical Thresholds in an Urban Watershed Using Unmanned Aerial Systems and Structure from Motion Photogrammetric Techniques. *Land Degradation & Development*, 1-10.
<https://doi.org/10.1002/ldr.2976>

Taniguchi, K., T. Biggs, E. Langendoen, C. Castillo, N. Gudino, Y. Yuan, and D. Liden, 2018. Stream channel erosion in a rapidly urbanizing region of the US-Mexico Border: Documenting the importance of channel hardpoints with Structure-from-Motion photogrammetry, *Earth Surface Processes and Landforms (ESPL)*, 43: 1465-1477. doi: 10.1002/esp.4331

Taniguchi, K. and T. Biggs, 2015. Regional impacts of urbanization on stream channel geometry: A case study in semiarid southern California, *Geomorphology*, 248, 228-236.

Technical Reports

Biggs, T., K. Taniguchi, N. Gudino, Y. Yuan, R. Bingner, E. Langendoen, and D. Liden, 2018. Field measurements to support sediment and hydrological modeling in Los Laureles Canyon (EPA/600/X-18/0XX). Washington, DC.

Taniguchi, K. and T. Biggs, 2013. Remote sensing for historical time series of channel form in San Diego County. Technical report for the San Diego Hydromodification Management Plan (HMP), County of San Diego, July, 2013.

Taniguchi, K. and T. Biggs, 2013. Remote sensing for channel geometry characterization in San Diego County. Technical report for the San Diego Hydromodification Management Plan (HMP), County of San Diego, July, 2013.

Taniguchi, K. and T. Biggs, 2013. Regional assessment of channel modification due to urbanization in San Diego County, Technical report for the San Diego Hydromodification Management Plan (HMP), County of San Diego, October, 2013.