

Laura C. Loyola

Spatial Sciences Institute
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CURRENT APPOINTMENTS

University of Southern California, Los Angeles, CA
Lecturer (2015-Present), Spatial Sciences Institute
Director of Undergraduate Studies (January 2018-Present), Spatial Sciences Institute

RESEARCH INTERESTS

Behavioral Adaptations to Habitat Loss and Habitat Partitioning, Use of Unmanned Aerial Systems (UAS) and High Resolution Imagery for Vegetation Species Identification, Land Cover Change as an Indicator of Forest Habitat Quality, Anthropogenic Factors Influencing Forest Loss

TEACHING INTERESTS

Spatial Thinking and Reasoning, Data Acquisition and Fitness-for-Use, Mapping and Cartography, Environment Justice, Maps Empowering for Social Issues, Geospatial Technologies and Unmanned Aerial Systems (UAS) for Conservation and Management

EDUCATION

Doctor of Philosophy (2015) Integrative and Evolutionary Biology, University of Southern California
Graduate Certificate (2010) Geographic Information Sciences and Technology, University of Southern California
Bachelor of Arts (1998) Biology, Amherst College

PROFESSIONAL CERTIFICATES

Remote Pilot License Certified (RPL) by the Federal Aviation Administration (FAA), 2018 until recertification is required 2020 (Cert # 4150999)

TEACHING EXPERIENCE

Courses Taught

Spatial Sciences Institute, University of Southern California

SSCI 350: International Geodesign, Course Coordinator (Summer 2019)
SSCI 684: Spatial Modeling with GIS, Lecturer (Spring 2019, Spring 2018)
SSCI 301L: Maps and Spatial Reasoning, Lecturer (Fall 2018, Fall 2017)
SSCI 594a: Master's Thesis, Lecturer (Summer 2017)
SSCI 594z: Master's Thesis, Lecturer (Spring 2019, Fall 2018, Fall 2016)
SSCI 587: Spatial Data Acquisition, Lecturer (Spring 2019, Fall 2018, Spring 2018, Fall 2017, Summer 2017, Fall 2016)
SSCI 594b: Master's Thesis, Lecturer (Summer 2018, Summer 2016)
SSCI 165lgw: Sustainability Science in the City, Lab Instructor (Fall 2015 – Spring 2017)
SSCI 301L: Maps and Spatial Reasoning, Lab Instructor (Fall 2015)

Department of Human and Evolutionary Biology, University of Southern California

HBIO 200lg: The Human Animal, Lab Instructor (Spring 2016)

Undergraduate Courses as Teaching Assistant

Spatial Sciences Institute, University of Southern California

SSCI 587: GPS/GIS Field Techniques, (2013)

Department of Human and Evolutionary Biology, University of Southern California

HBIO 200lg: The Human Animal, (2014-2015)

Department of Anthropology, University of Southern California

ANTH 200lg: Human Origins, (Spring 2013 – Spring 2014, Fall 2008 – Spring 2009, Fall 2010 – Spring 2011)

PUBLICATIONS

Refereed Journal Articles

Loyola LC, Moore T, Turcotte LP, Delgado, RA. Folivorous primates exhibit behavioral modifications to mediate variations in energy balance, 2017. (In revision)

Coiner-Collier S, Scott RS, Chalk J, Cheyne SM, Constantino P, Dominy NJ, Elgart AA, Glowacka H, Loyola LC, Ossi-Lupo K, Raguette-Schofield M, Talebi MG, Sala EA, Sieradzy P, Taylor AB, Vinyard CT, Wright BW, Yamashita N, Lucas PW, Vogel ER. (2016). Primate dietary ecology in the context of food mechanical properties. *Journal of Human Evolution*, 98:103-118. (available at <https://doi.org/10.1016/j.jhevol.2016.07.005>)

Special Publications

Kivai, SM, **Loyola LC**, Mbora DNM, Wieczkowski J, de Jong YA, King J, Allen LV, Cronin D, Ting N, Butynski T. Tana River Red Colobus. In *Primates in Peril: World's 25 Most Endangered Primates, 2018-2020*. Mittermeier, RA, Rylands AB, Chiozza F, Williamson EA, Wallis J, and Cotton A (eds). IUCN SSC Primate Specialist Group (PSG), International Primatological Society (IPS), Conservation International (CI), Bristol Zoological Society (BZ). In prep 2019.

Kivai, SM, Allen LV, Butynski TM, DeJong YA, **Loyola LC**, Mbora DNM, Ting N. Tana River Red Colobus (*P. rufomitratus*). In *Red Colobus Conservation Action Plan (ReCAP) 2019-2021* eds Cronin DT, Linder JM, Ting N, Abwe E, McGraw WC, Hart JA, Detwiler K, Kivai SM, Bi SG, Oates JF, Struhsaker TT. In prep, 2019

HONORS AND AWARDS

Summer Undergraduate Research Fellowship (5 student awards \$3000 each), University of Southern California, 2019

Dornsife Teaching Computer Support, University of Southern California, 2019

Dornsife Faculty Development Funds, University of Southern California, 2018-2019

Undergraduate Research Assistant Program (\$4500), University of Southern California (Faculty PI), 2017

Graduate Student Government Travel Grant, 2015

Jane Goodall Institute Grant, 2014

Women in Science and Engineering Merit Fellowship, 2014

IEB Merit Scholarship, 2013

Graduate Student Government Travel Grant, 2013

Jane Goodall Institute Travel Award, 2013

Academic Professional Development Dissertation Writing Group Award, 2013

Ford Foundation Dissertation Fellowship – Honorable Mention, 2011

Foster Graduate Fellowship, 2011-2012

USC College Gold Family Fellowship, 2011

IEB Merit Scholarship, 2011

Mayr Life Sciences Fellowship, 2009-2010

CONFERENCES AND LECTURES

Conference Paper Presentations

Loyola LC, Marx A, Fleming SD. Combining Teaching, Partnerships, and Research in the Field: Lessons Learned from the Spatial Data Acquisition Course (Field Excursion on Catalina Island). *GIS-Pro & CalGIS 2018*. Palm Springs, CA. 2018.

Loyola LC, Moore T, Turcotte LP, Delgado, RA. The Tana River red colobus mediate seasonal variations in metabolizable energy intake through behavioral modifications. Paper presentation. *Joint Meeting of the International Primatological Society and American Society of Primatologists*, Chicago, IL. 2016.

Loyola LC, Delgado RA. The Tana River red colobus (*Procolobus rufomitratus*) exhibit behavioral flexibility to changes in habitat quality: A longitudinal and spatial comparison of behavioral ecology. Paper presentation. *84th Annual Meeting of the American Association of Physical Anthropologists*, St. Louis, MO. 2015.

Loyola LC, Delgado RA. Surviving in the Tana: Behavioral Ecology and Conservation of the Tana River red colobus (*Procolobus rufomitratus*). Paper presentation. *Joint Meeting of the International Primatological Society and American Society of Primatologists*, Hanoi, Vietnam. 2014.

Poster Presentations

Nixon, E. and **Loyola LC**. The effect of point source pollution on the health and resilience of the Southern California kelp forest ecosystem. Poster. USC Undergraduate Symposium for Scholarly and Creative Work. Los Angeles, CA. 2019

Poynor M, Currylow A, **Loyola LC**. A spatial analysis of habitat partitioning of two sympatric tortoise species: *Pysis arachnoids* and *Astrochelys radiata* in Tranovaho, Madagascar. Poster. *Esri UC*. San Diego, CA. 2018.

Loyola LC, Turcotte LP, Delgado RA. Validating the use of Urinary C-peptide as a measure of metabolizable energy intake in captive colobus monkeys – a variation on preservation methods. Poster. *36th Annual Meeting of the American Society of Primatologists*, San Juan, Puerto Rico. 2013.

E.R. Vogel, S. Coiner-Collier, R.S. Scott, J. Chalk, P. Constantino, H. Glowacka, **L. Loyola**, K. Ossi-Lupo, M. Raguet-Schoefield, M. Talebi, C.J. Vinyard, B.W. Wright, N. Yamashita, N.J. Dominy, P.W. Lucas. Do food material properties predict jaw and tooth morphology in primates?

Poster. 82nd Annual Meeting of the American Association of Physical Anthropologists, Knoxville, TN. 2013.

Loyola LC, Delgado RA. 2011. A proposed methodology for creating a GIS database framework for the analysis of red colobus (*Procolobus rufomitratus*) habitat. Poster. *Joint Meeting of the International Primatological Society and American Society of Primatologists*, Austin, TX. 2011.

Loyola, LC, Vogel, E, Zulfa, A, Delgado, RA. The physical properties of Northeast Bornean orangutan plant foods. Poster. 79th Annual Meeting of the American Association of Physical Anthropologists, Albuquerque, NM. 2010.

Invited Lectures / Panel Presentations

Remote Sensing Technology, SSCI 301: Maps and Spatial Reasoning. Spatial Sciences Institute, University of Southern California, Los Angeles, CA. 2019

Ad-hoc Committee on Diversity and Inclusion Roundtable (Panelist and Record-keeper). 27th International Primatological Society Congress. Nairobi, Kenya. 2018.

Vegas Hits the Jackpot: How the Sports Industry is Impacting Real Estate (Moderator and Panelist). Hosted by the USC Alumni Association, Real Estate Network. Las Vegas, NV. 2018

An Active-Learning Librarian Class Visit (Moderator), *SSCI 165: Sustainable Science in the City*. Spatial Sciences Institute, University of Southern California, Los Angeles, CA. 2017.

Restoring Urban Biodiversity, SSCI 165: Sustainable Science in the City. Spatial Sciences Institute, University of Southern California, Los Angeles, CA. 2017.

Food and Behavior: A Look at Red Colobus and Orangutans, Human Biology 200: The Human Animal. Human and Evolutionary Biology, University of Southern California, Los Angeles, CA. 2016.

Restoring Urban Biodiversity, Spatial Sciences 165: Sustainable Science in the City. Spatial Sciences Institute, University of Southern California, Los Angeles, CA. 2016.

Roundtable on Diversity (Panelist), *Joint Meeting of the International Society of Primatologists and the American Society of Primatologists* Chicago, IL. 2016.

Red Apes, Red Colobus, and Green Living, Presented to the USC Second Decade Society, San Diego Zoo, San Diego, CA. 2015.

From Red Apes to Red Colobus, Anthropology 200: Human Origins. Department of Anthropology, University of Southern California, Los Angeles, CA. 2014.

Careers in Biological Anthropology. Presented to Anthropology 200 students, University of Southern California, Los Angeles, CA. 2013.

The Evolution of Altruistic Behaviors. Anthropology 200: Human Origins. Department of Anthropology, University of Southern California, Los Angeles, CA. 2013.

Northeast Bornean Orangutan Food Properties. Presented at the Biology Departmental Seminar, Whittier College, Whittier, CA. 2011.

Community Ecology. Anthropology 309: Primate Social Behavior University of Southern California, Los Angeles, CA. 2010.

Biogeography, Speciation and Conservation. Anthropology 406: Theory & Method in Biological Anthropology University of Southern California, Los Angeles, CA. 2010.

Primate Communication. Anthropology 309: Primate Social Behavior University of Southern California, Los Angeles, CA. 2009.

Properties of Northeast Bornean Orangutan Plant Foods. BISC 549a: Integrative and Evolutionary Biology Seminar University of Southern California, Los Angeles, CA. 2009.

Conference and Workshop Participation

Esri GeoDesign Summit, 2019

USC LA Geospatial Summit. 2019, 2018, 2017

Connections: USC & Community in Research & Service. 2018

Esri GeoDesign Summit – Educator Meeting, 2018

Taylor Yard G2 GeoDesign Workshop 2018

Center for Excellence in Teaching (CET): Diversity and Inclusion in Course Materials: A Practical Approach 2018

Center for Excellence in Teaching (CET): New Faculty Institute 2017 – 2018

Center for Excellence in Teaching (CET) Workshop: An Active-Learning USC Librarian Class Visit. 2017

Center for Excellence in Teaching (CET) Workshop: Setting and Maintaining Academic and Behavioral Expectations in the Classroom. 2016

Center for Excellence in Teaching (CET) Workshop: Managing Classroom Distraction from Cell Phones and Laptops. 2016

Spatial Sciences Institute: Introduction to Spatial Sciences: Bring place and space into your Sociology Projects. 2016

Arroyo Seco Feasibility Study Public Workshop. Pasadena, CA 2016

Center for Excellence in Teaching (CET) Workshop: The Arc of Academic Life: What to Expect Along the Journey from Graduate School to Tenure. 2016

Spatial Sciences Institute: GeoDesign Workshop with Carl Steinitz. 2016

Center for Excellence in Teaching (CET) Workshop: Peer Observation of Teaching as a Tool for Improving Teaching Effectiveness and Providing Mentoring & Support. 2015

Non-tenure track (NTT)/ Research, Teaching, Clinician, Practitioner (RTCP) Faculty Mentoring workshops. 2015

SYNERGISTIC RESEARCH ACTIVITIES

Determining Habitat Partitioning by Tortoise Species in Madagascar Through Geo-referenced Field Data and Remotely Sensed Data

Madagascar and Los Angeles, CA, August 2017 – present

Dr. Andrea Currylow, Chief Scientific Review Officer, Hoholil Grant Program; ACEcological Research and Consulting; Adjunct Assistant (Research) Professor, USC.

Project Aim: To examine the relationships between habitat type and ranging patterns of six tortoise species to parse out confounding factors of habitat partitioning, including longitudinal changes in microhabitats and variations by age and sex class, seasonality, and captive-bred versus wild tortoises.

IUCN Red Colobus Conservation Action Plan ReCAP

2016-Present

Project Aim: To develop an action plan for the conservation and management of red colobus monkeys across Africa through international collaborations. Specific contribution is a temporal analysis of the change in riverine forest coverage along the Tana River region, Kenya.

FIELD EXPERIENCE

Tana River, Kenya

January-December 2012

Project Aim: To examine the relationship between metabolizable energy intake (MEI) of the Tana River red colobus (*Procolobus rufomitratus*) and habitat quality over variable seasons and habitats in the riverine forests of the Tana River.

Tana River, Kenya

June-August 2011

Project Aim: Participatory Action Research Feasibility Study to investigate poverty levels and livelihood strategies of local populations alongside conservation strategies.

East Kalimantan, Indonesia

June-August 2009

Project Aim: To evaluate the mechanical properties of *Pongo pygmaeus morio* (*P.p. morio*) plant foods in East Kalimantan, Borneo.

Kenya's Forest Monkeys Project, International Field Assistant

Gede, Kenya May-November 2006 (PI: Steffen Foerster, PhD.)

Project Aim: This project studied the feeding ecology, social behavior, and physiological responses to stress of female *Cercopithecus mitis* (*C. mitis*).

Institute of Primate Research, Intern

Nairobi, Kenya May 1997 (PI: Dr. Suleman)

Multiple projects including research on HIV medications and primate conservation.

Kenya Field Study Program

Nairobi, Taita Hills, Samburu – Kenya, St. Lawrence University (1997)

Cultural immersion program with multiple home-stays throughout Kenya, language acquisition, culminating in an independent research project.

GRADUATE STUDENT ADVISEMENT

Geographic Information Sciences & Technology, Master of Science, Committee Chair

Dane Cornell – *Testing Social Disorganization Theory on Violent Crime: A Case Study of Pueblo, CO*. In progress, 2019

Trey Lee – *An Examination of Close-Range Photogrammetry and Traditional Cave Survey Methods for Terrestrial and Underwater Caves for 3-Dimensional Mapping*. 2018

Reid Harwood – *Improving Positional Accuracy of Smartphones: Exploration of the Use of Broadband Global Area Network (BGAN) Systems in Positional Data Collection*, 2018

Quincy Tom-Jack – *Creating Hot Streets: Developing an Automated Approach for Hot Street Analysis (HAS) using Model Builder*, 2018

Colleen Makar – *Using GIS and Asset Management to Understand Hydrant Damages and Required Maintenance*, 2017

Shannon McLemore – *Spatio-Temporal Analysis of Wildfire Incidence in the State of Florida*, 2017

Marisol Maciel-Cervantes – *Site Selection for Higher Density Affordable Rental Housing Development: Applying the Weighted Linear Combination (WLC) Method in the City of Los Angeles, California*, 2016

Brian Jopp – *A Spatial Analysis of Violent Crime Cold Spots: Testing the Capable Guardian Component of the Routine Activity Theory*, 2016

Cynthia Burrows – *Developing an Archaeological Scientific Geodatabase to Chronicle Historical Perspectives at Bethsaida, Israel*, 2016

Geographic Information Sciences & Technology, Master of Science, Committee Member

Cass Kalinsky – May 2019

Stephen Daire – December 2018

Tiffany Lee – August 2018

Donald Borer – August 2018

Kristiane Hill – August 2018

William Dickey – August 2018

Kyle Burke – May, 2018

Sara Godfrey – May, 2018

Christine Placencia – May, 2018

Drew Cover – January, 2018

Quentina Borgic – September 2017

Sheldon Jessup – August 2017

Jessica Eselius – August 2017

Jonathan Alfonso – May 2017

Angela Woods – May 2017

Ricky Holzer – December 2016

Matt Kline – August 2016

Rev. May 2019

Mark P. Johnson – May 2016

Robert Alexander – May 2016

Shuk Wai So – May 2016

Yee Kit Sang – January 2016

Edgar H. Jimenez – January 2016

Faith Webster – December 2015

SERVICE and OUTREACH

Service to the Profession

Geographic Information Science and Technology Body of Knowledge, Reviewer, 2017

Centre for Tropical Environmental and Sustainability Science (TESS) Road Mapping Project, 2017

Holohil Grant Program Review Committee, 2016-Present

Service to the University of Southern California

USC Geodesign Fellow – Fellow Selection Committee, 2019

USC Dornsife Signature Undergraduate Experience, Steering Committee, 2019-Present

Spatial Sciences Institute – Director of Undergraduate Studies, 2018-Present

Explore USC Faculty/Parent Lunch/Dinner, 2018, 2019

USC Commencement Marshal, 2019, 2018

USC Dornsife Faculty Council – Curriculum Caucus, 2016

IEB Program Representative and Recruitment Table, SACNAS National Conference, 2014

Service to the Spatial Sciences Institute

SSI Undergraduate Curriculum Review Committee, 2017-Present

SSI Faculty Merit Review Committee, 2017-2018

SSI Faculty Merit Evaluation Committee, 2016-2017

SSI GIST MS Faculty Jury, 2018, 2017, 2016, 2015

SSI Graduate Programs Review Committee, 2016

SSI GIST Thesis Prize Committee, 2016

Community Outreach

Baldwin Hills Elementary School – University of Southern California Liaison, Los Angeles, CA, 2017

Healthy Living Course, University High School – Guest Speaker, Human evolution and the modern diet: disequilibrium, nutrition, and food availability, Los Angeles, CA, 2015

Robert F Kennedy Community Schools, Community Career Day– School for the Visual Arts and Humanities, bilingual presenter, Los Angeles, CA, 2014

Robert F Kennedy Community Schools, Community Career Day– School for the Visual Arts and Humanities, bilingual presenter, Los Angeles, CA, 2013

Kongoloni Youth Conservation Initiative – Tree Nursery Development and Maintenance Workshop with Kenya Wildlife Services, Mchelelo Research Camp, Tana River, Kenya, 2012

Hola Secondary School Visit – Discussant during secondary school visit to Mchelelo Research Camp, Tana River, Kenya, 2011

PROFESSIONAL MEMBERSHIPS

Women In GIS 2017-Present

University Consortium of Geographic Information Science, 2017

Society for Conservation GIS, 2015-Present

Society for the Advancement of Chicanos and Native Americans in Science (SACNAS), 2010-Present

International Society of Primatologists, 2009-Present. Ad hoc Committee on Diversity 2017-Present

American Society of Primatologists, 2009-Present

American Association of Physical Anthropologists, 2009-2016

Animal Behavioral Society, 2009-2015

OTHER PROFESSIONAL EXPERIENCE

Bograd Kids, Inc. – Accounting and Customer Service Manager, New York, NY, 2007-2008

Wildlife Conservation Society – Bronx Zoo – Volunteer, Mammal Department, Bronx, NY, 2005-2006

Dr. Robert G. Schwager, M.D./Smooth Touch Laser Center, Center Manager, Joint Commission on Accreditation of Healthcare Organizations (JCAHO) Certification Team, New York, NY, 2004-2006

Biscuits & Bath Doggy Gym – General and Fiscal Manager and Translator, New York, NY, 1999-2004

Hampshire Veterinary Hospital – Assistant Veterinary Technician, Amherst, MA, 1998-1999

Wildlife World Zoo – Volunteer, Litchfield Park, AZ, 1997

LANGUAGES and SKILLS

Fluent in Spanish, Conversational Swahili and Indonesian.

Geographical Information Sciences and Technology (GIST) Certified; operation of Darvell mechanical tester; ArcMap and ArcGIS Pro; computer literate on multiple platforms.

OUTSIDE INTERESTS, SOCIAL MEDIA

Hiking and distance cycling.

Travel throughout continental United States, Mexico, Costa Rica, Puerto Rico, United Kingdom and other European countries, East Africa.

Twitter: @loyolabusmonkey

Additional weblinks/blogs: <http://www.holohil.com/grant-program/the-girl-with-the-monkey-tattoo-blog.tumblr.com>
<http://tanaproject.wordpress.com/2011/10/19/tana-river-blog/>