Leonardo **Calzada**

Incoming Assistant Professor | Department of Geography and Environmental Studies, New Mexico State University

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Education

Rutgers University — *New Jersey, USA*

PhD., Geography — *2020–2026*

- Dissertation title: "Trailblazing development: Effects of State-led Interventions on Forest Degradation Patterns and Local Governance in the Calakmul—Sian Ka'an Corridor, Mexico"

National Autonomous University of Mexico — *Mexico City, Mexico*

M.Sc., Biological Sciences — *2017–2019*

- Thesis title: "Socio-environmental analysis of land use/land cover change in the Oaxacan isthmus, Mexico" (in Spanish)

National Autonomous University of Mexico — *Mexico City, Mexico*

B.Sc., Biology — *2011–2015*

- Thesis title: "Assessment of forest cover change in two communities under Payment for Hydrological Environmental Services Program in the Basin of Mexico" (in Spanish)

Professional Experience

New Mexico State University | Department of Geography and Environmental Studies — *New Mexico, USA*

Assistant Professor — *2026–Present*

Mexican Biosafety Commission (CIBIOGEM) | National Council for Science and Technology — *Mexico*

Deputy director of biosafety communication — *2019–2020*

- Responsible for the National Biosafety System for GMOs
- Member of the Mexican delegation and manager of the Mexican portal at the United Nations Convention on Biological Diversity.

National Biodiversity Commission (CONABIO) — *Mexico*

Cartographer — *2016–2017*

- Strategy for the Conservation and Sustainable Use of Biodiversity in Oaxaca State.
- Biodiversity in Coahuila: A Status Study
- Biodiversity in Mexico City
- Mexico's National Biodiversity Strategy

Mexico City Secretary of the Environment — *Mexico*

Spatial modeling specialist — *2015–2016*

- External evaluation of the Program of Support Funds for the Conservation and Restoration of Ecosystems through Social Participation (Proface).
- External evaluation of the program of redistribution for the conservation of environmental services (PRCSA)

Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD) — *Mexico*

Field assistant — *2015*

- Parc National Nevado de Toluca: un laboratoire socio-environnemental pour des innovations politiques dans la gestion de parcs nationaux.

Conservation International — *Mexico*

Technical assistant — *2014–2015*

- Participatory community diagnostics in three pilot sites around the Water Forest Strategy

Research Experience

Rutgers University *New Jersey, USA*

Research Assistant *2024 – 2026*

- Project: "Mapping Fishing Communities' Economic and Cultural Ties to Offshore Locations to Enhance Participation in Management and Decision Making"
- Principal Investigator: Kevin St. Martin, Professor, Rutgers University
- Funding: NOAA. Northeast Sea Grant Consortium and Northeast Fisheries Science Center

Rutgers University *New Jersey, USA*

Research Assistant *2021 – 2023*

- Project: "Developing Indices of Vulnerability to Climate Change for Ground Fishing Communities in the Northeast"
- Principal Investigator: Kevin St. Martin, Professor, Rutgers University
- Funding: New Jersey Sea Grant (NJ Sea Grant) 6189-0000.

The University of Buenos Aires – Regional Analysis and Remote Sensing Laboratory (LART). *Buenos Aires, Argentina*

Research Stay *2017*

- Project: "Socioenvironmental analysis of land use/land cover change in tropical dry forests"
- Supervised by José Paruelo
- Funding: National Council for Science and Technology, Research Stay Grant

National Autonomous University of Mexico *Mexico City, Mexico*

Participant *2016–2018*

- Project: "Socioenvironmental analysis of conservation and deforestation processes in the tropical dry forest of Mexico"
- Principal Investigators: Fernanda Figueroa, Jorge A Meave & Consuelo Bonfil, UNAM
- Funding: PAPIIT-DGAPA [UNAM], grant no. IA205216

Publications

Research Papers

1. **Calzada, L.**, Schneider, L. C., & Figueroa, F. (2025). Local Perspectives and Institutional Bricolage Around Conservation and Development: Sembrando Vida and the Maya Train in the Southern Yucatán Peninsula. *Regional Environmental Change*, *25*(4), 1–17. https://doi.org/10.1007/s10113-025-02458-x
2. Selden, R. L., Kitchel, Z. J., Coleman, K. E., **Calzada, L.**, & St. Martin, K. (2024). Using Historical Catch Flexibility and Fishing Ground Mobility As Measures of the Adaptive Capacity of Fishing Communities to Future Ocean Change. *ICES Journal of Marine Science: Journal Du Conseil*, *81*(10), 1972–1987. https://doi.org/10.1093/icesjms/fsae139
3. Figueroa, F., **Calzada, L.**, & Meave, J. A. (2020). Integrating Pattern-Based Modelling and Political Ecology in Land-Use Change Research: the Case of Mexican Dry Tropics. *Journal of Land Use Science*, *15*(2-3), 252–269. https://doi.org/10.1080/1747423x.2019.1681527
4. **Calzada, L.**, Meave, J. A., Bonfil, C., & Figueroa, F. (2018). Lands at Risk: Land Use/Land Cover Change in Two Contrasting Tropical Dry Regions of Mexico. *Applied Geography (Sevenoaks, England)*, *99*, 22–30. https://doi.org/10.1016/j.apgeog.2018.07.021
5. Wegier, A., Alavez, V., Pérez-López, J., **Calzada, L.**, & Cerritos, R. (2018). Beef or Grasshopper Hamburgers: the Ecological Implications of Choosing One Over the Other. *Basic and Applied Ecology*, *26*, 89–100. https://www.sciencedirect.com/science/article/pii/S1439179117300324
6. Ortega, T., Mastrangelo, M., Villarroel, D., Piaz, A., Vallejos, M., Saenz, J., Gallego, F., Franquesa, M., **Calzada, L.**, Espinosa, N., Fiestas, J., Gill, L., González, Z., Luna, B., Martinez, C., Ochoa, O., Pérez, L., Sala, J., Sánchez, I., … M., M. (2014). Estudios Transdisciplinarios En Socio-Ecosistemas: Reflexiones Teóricas Y Su Aplicación En Contextos Latinoamericanos. *Investigación Ambiental, Ciencia y Política Pública*. https://ri.conicet.gov.ar/handle/11336/43261

Book Chapters

1. Figueroa, F., & **Calzada, L.** (2019). Gobernanza Del Manejo De Los Recursos Forestales En México. In V. S. Ávila Foucat & M. Perevochtchikova (Eds.), *Sistemas socio-ecológicos: Marcos analíticos y estudios de caso en oaxaca, méxico* (pp. 205–226). Institute of Economic Research, National Autonomous

University of Mexico. https://doi.org/10.22201/iiec.9786073013109e.2019
2. Puente Uribe, B., **Calzada, L.**, Bonfil, C., & Figueroa, F. (2017). Prácticas Agrícolas Y Conservación De La Agrobiodiversidad En Amatlán De Quetzalcóatl. In Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO) & Gobierno del Estado de Morelos (Eds.), *La biodiversidad en morelos: Estudio de estado 2: Vol. III* (pp. 428–433). Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO). https://doi.org/10.5962/bhl.title.118977

Cartographic Design in Publications

1. [CONABIO] Comisión Nacional Para el Conocimiento y Uso de la Biodiversidad, & [SEMA] Secretaria de Medio Ambiente del Estado de Coahuila de Zaragoza. (2017). *La Biodiversidad En Coahuila: Estudio De Estado: Vols. I - II*. CONABIO; SEMA; Quintanilla Ediciones.
2. [CONABIO] Comisión Nacional Para el Conocimiento y Uso de la Biodiversidad, & [SEDEMA] Secretaria del Medio Ambiente del Distrito Federal. (2016). *La Biodiversidad En La Ciudad De México: Vols. I - III*. CONABIO; SEDEMA.
3. [CONABIO] Comisión Nacional Para el Conocimiento y Uso de la Biodiversidad. (2016). *Estrategia Nacional Sobre La Biodiversidad De México (Enbiomex) Y Plan De Acción 2016-2030*. CONABIO.

Science Communication and Outreach

1. **Calzada, L.**, Schneider, L. C., Peña, A., Monroy, C., Figueroa, F., Mendoza, R. P., Haenn, N., Villalobos, M., & Benítez, M. (2024). *Entre Selvas Y Comunidades: Políticas Públicas, Desarrollo Y Dinámicas Forestales En Los Territorio Del Corredor Calakmul-Sian Ka'an* (L. Calzada, Ed.). Funded by Fulbright-Comexus; National Geographic Society.
2. **Calzada, L.** (2024). *Yaan Jump'éel Tsímin K'áak Iche' K'áaxo - There Is a Train Across the Jungle: Voices and Visions on the Maya Train, Sembrando Vida, and the Future of the Maya Forest*. https://arcg.is/1zj81z1. *Accessed: 2025-2-25*.
3. **Calzada, L.** (2024). *El Susurro De Los Árboles - Degradación Y Regeneración De Los Bosques En El Corredor Calakmul Sian Ka'án*. https://arcg.is/10vTeP2. *Accessed: 2025-2-25*.
4. Figueroa, F., Meave, J. A., Pérez-García, E, **Calzada, L.**, & Rangel, V, García-Sevilla, C. (2018). *Nizanda. Transformación Ambiental Y Social En El Istmo Oaxaqueño* (F. Figueroa & L. Calzada, Eds.). Ediciones Quinto Sol, UNAM.
5. Figueroa, F., Bonfil, C., Barrales, B., **Calzada, L.**, Puente-Uribe, B., Romero, M., & García-Sevilla, C. (2018). *Amatlán. Transformación Ambiental Y Social En El Norte De Morelos* (F. Figueroa & L. Calzada, Eds.). Ediciones Quinto Sol, UNAM.
6. González-Jiménez, D., Franquesa, M., Bueno, I., Lazos, E., Noellemeyer, E., Mwampamba, T., Maass, M., & Balvanera, P. (Eds.). (2014). *Guía Para El Diseño Y Ejecución De Cursos Interdisciplinarios. Aprendizajes Derivados Del Curso De Sistemas Socio-Ecológicos Para La Toma De Decisiones*. CIEco e IIS – UNAM, IAI, UNLPam.

Technical Reports

1. Bermúdez, G. E., **Calzada, L.**, Cerritos, F. R., Gómez, Z. D. P., Hagman, A. E. L., Mondragón, T. M. E., Orozco, L. B. Y., Peraza, V. H., Pérez, O. G., Lima, V. L., López, L. C., Ruíz Toledo J, Sánchez, C. R., Sánchez, J. A., Sánchez, M. S., Serrano, S. N., Soberanes, G. C. V., & Vides, B. E. (2024). *Scientific Dossier on Genetically Modified Corn and Its Effects. Effects of Gm Corn on Human Health, the Environment and Biodiversity, Including the Biocultural Richness of Native Corn in Mexico*. Consejo Nacional de Humanidades, Ciencias, y Tecnologías [CONAHCYT], Gobierno de México. https://usrtk.org/wp-content/uploads/2024/11/DOSSIER-MAIZ-2024-ENGfinal-5.pdf
2. Almeida Leñero, L., Jujnovsky Orlandini, J., Ramos, A., Cetina Arenas, L., Guadarrama Almeida, K., Rivero Aranda, S. L., **Calzada, L.**, & Correa Ayram, C. (2016). *Evaluación Externa Del Programa De Fondos De Apoyo Para La Conservación Y Restauración De Los Ecosistemas a Través De La Participación Social*. Secretaría del Medio Ambiente de la Ciudad de México, UNAM.
3. Almeida Leñero, L., Jujnovsky Orlandini, J., Ramos, A., Cetina Arenas, L., Rivero Aranda, S. L., Guadarrama Almeida, K., Hudler Schimpf, C., Correa Ayram, C., & **Calzada, L.** (2015). *Evaluación Externa Del Programa De Redistribución Por La Conservación De Servicios Ambientales (Prcsa)*. Secretaría del Medio Ambiente de la Ciudad de México, UNAM.
4. Almeida Leñero, L., Figueroa, F., Ramos, A., **Calzada, L.**, & Galván Benítez, L. E. (2014). *Estrategia Para La*

Conservación Del Bosque De Agua Diagnóstico Participativo De La Comunidad De Coajomulco, Mpio. De Huitzilac, Morelos. International Conservation; National Autonomous University of Mexico; Gonzalo Rio Arronte foundation.

5. Almeida Leñero, L., Figueroa, F., Ramos, A., **Calzada, L.**, & Galván Benítez, L. E. (2014). *Estrategia Para La Conservación Del Bosque De Agua: Diagnóstico Participativo De La Comunidad De San Miguel Topilejo, Distrito Federal*. International Conservation; National Autonomous University of Mexico; Gonzalo Rio Arronte foundation.
6. Almeida Leñero, L., Figueroa, F., Ramos, A., **Calzada, L.**, & Galván Benítez, L. E. (2014). *Estrategia Para La Conservación Del Bosque De Agua Informe Final: Reporte General Regional*. International Conservation; National Autonomous University of Mexico; Gonzalo Rio Arronte foundation.

In Preparation

1. **Calzada, L.**, & Schneider, L. C. (In preparation). Disturbance Interactions Shape Heterogeneous Biomass Trends in the Southern Yucatán Tropical Seasonal Forest. For submission to *International Journal of Applied Earth Observation and Geoinformation*. `https://doi.org/10.2139/ssrn.5655753`
2. Rader, A. M., Schmook, B., Olmedo-Navarro, S., Villalpando-Páez, M. C., Winkler-Schor, S., **Calzada, L.**, Gonzalez-Moctezuma, P., Barrera-Bello, A. M., Mardero, S., & Rhemtulla, J. (In preparation). Power Dynamics, Interaction, and Environmental Governance: a Case Study of Sembrando Vida. For submission to *Journal of Rural Studies*.
3. Figueroa, F., **Calzada, L.**, Schneider, L. C., Benítez, M., & Monroy-Guzmán, C. (In preparation). History of Territorial Regime Shifts: State-Led Interventions, Market-Oriented Initiatives, and Local Responses in the Southern Yucatan Peninsula. For submission to *Territory, Politics, Governance*.
4. **Calzada, L.**, St. Martin, K., Nogue, B., Selden, B., Kitchel, Z., & Coleman, K. C. (In preparation). Responding to Climate Change: Revealing Fishing Community Precarity and the Foundations of Environmental Justice. For submission to *Marine Policy*.

Selected Presentations

1. **Calzada, L.**, Schneider, L., & Figueroa, F. (2025). *Beyond Resistance: Institutional Bricolage and Local Perspectives on Sembrando Vida and the Maya Train in the Southern Yucatan*. 61st Annual Meeting of The Association for Tropical Biology and Conservation.
2. **Calzada, L.**, Schneider, L., & Peña, A. (2024). *Heterogeneous Landscapes in the Southern Yucatan: Sembrando Vida and Land Use Within State-Led Development Interventions*. Global Land Programme 5th Open Science Meeting.
3. St. Martin, K., **Calzada, L.**, Nogue, B., Selden, R., Kitchel, Z., & Coleman, K. (2023). *Revealing Fishing Community Precarity and the Foundations of Environmental Justice*. Mare Conference People & the Sea XII.
4. **Calzada, L.**, & Schneider, L. (2023). *Forest Degradation Patterns and Sembrando Vida in the Calakmul—Sian Ka'an Biological Corridor, Mexico*. Annual Meeting of the American Association of Geographers.
5. **Calzada, L.** (2023). *Patrones De Degradación Forestal Y Sembrando Vida En El Corredor Biológico Calakmul-Sian Ka'an, México*. II Congreso Estatal de Ciencia, Tecnología Agropecuaria y del Mar.
6. St. Martin, K., **Calzada, L.**, Nogue, B., Selden, B., Kitchel, Z., & Coleman, K. (2023). *Mapping Precarious Fishing Communities As a Foundation for Environmental Justice*. 83rd Annual Meeting of the Society for Applied Anthropology.
7. Kitchel, Z., Coleman, K., Selden, R., **Calzada, L.**, Nogué Algueró, B., & St. Martin, K. (2022). *Distinct Patterns in Historical Mobility and Catch Flexibility Underscore Intra-Port Variation in Potential Adaptive Capacity to Climate Change*. Mid-Atlantic Chapter - American Fisheries Society Annual Conference.
8. **Calzada, L.**, & Figueroa, F. (2022). *La Transformación Del Istmo Oaxaqueño ' Intervenciones De Desarrollo Y Su Impacto En La Dinámica Agropecuaria Y De Urbanización*. VII Congreso Mexicano de Ecología.
9. **Calzada, L.**, Rader, A., & Schneider, L. (2022). *A Matter of Time - Detecting Vegetation Change and Biomass Temporal Response to Disturbances in the Maya Forest, Mexico*. Annual Meeting of the American Association of Geographers.
10. Rader, A., Schneider, L., & **Calzada, L.** (2022). *Successional Clustering: Structural and Compositional Recovery in a Seasonally Dry Tropical Forest After Hurricane Disturbance in the Mexican Mesoamerican Biological Corridor*. Annual Meeting of the American Association of Geographers.

11. **Calzada, L.**, Selden, R., Coleman, K., Young, T., & St. Martin, K. (2021). *What Is a Port Without Its Vessels? – Decline and Consolidation in the Fishing Ports of the Northeast*. AAGMSM Annual Conference.
12. Sosa, C., Figueroa, F., & **Calzada, L.** (2019). *Trends of Conservation and Development in Mexican Biosphere Reserves: Spatial Analysis and Linear Mixed Model*. International Conference on Forestry and Rural Development.
13. **Calzada, L.**, Figueroa, F., Romero, M. E., & Rangel, V. (2017). *Socio-Ecological Dynamics Linked to Hydrological Ecosystem Services Provision in Seasonal-Dry Forests in Southern Mexico*. II Open Conference of the Programme on Ecosystem Change and Society.
14. Figueroa, F., & **Calzada, L.** (2016). *Gobernanza En El Manejo De Los Recursos Forestales*. Seminario Estudios de los sistemas socioambientales en Oaxaca.
15. **Calzada, L.**, Almeida-Leñero, L., Figueroa, F., & Vallejos, M. (2015). *Evaluación Multi-Escalar Del Psah En Dos Comunidades De La Cuenca De México*. V Congreso Mexicano de Ecología.

Awards & Achievements

Scholarships

Presidential Postdoctoral Fellowship *Declined*
Stanford University

Postdoctoral Fellowship *Declined*
Ohio State University

Wind Institute Offshore Wind (OSW) Fellowship Program *2024-2025*
New Jersey Economic Development Authority

Student Small Grant *2024*
Center for Latin American Studies, Rutgers University

Fulbright – National Geographic *2023-2024*
National Geographic Society

Fulbright – García Robles *2023-2024*
Institute of International Education (IIE)

MaGrann Field Research Award *2023*
Department of Geography, Rutgers University

Field Study Award *2023*
Latin America Specialty Group of the Association of American Geographers

Field Study Grant *2023*
Conference of Latin American Geography

Student Small Grant *2023*
Center for Latin American Studies, Rutgers University

Honorable mention *2022*
Ford Foundation

Student Small Grant *2021*
Center for Latin American Studies, Rutgers University

Dean's Fellowship for doctoral study *2019-2020*
Rutgers University

Graduate scholarship for master's degree *2016-2018*
CONACyT

Research Stay Grant [Universidad de Buenos Aires] *2017*
CONACyT

Awards

Graduate Teaching Excellence Award *2023*
Department of Geography, Rutgers University

Best Student Paper Award *2023*

Biogeography Specialty Group of the Association of American Geographers

Honors

Bachelor in Biology: Magna Cum Laude *2015*

UNAM

Master in Science: Magna Cum Laude *2019*

UNAM

Memberships

- National Geographic Explorers
- Global Land Programme (GLP)
- The Community Economies Research Network (CERN)
- Association for Tropical Biology and Conservation (ATBC)
- American Association of Geographers (AAG)
- Conference of Latin American Geography (CLAG)

Professional Training and Academic Workshops

2023	**Summer School: Researching Postcapitalist Possibilities**: Community Economies Institute (West Virginia, USA)
2021	**Openscapes: Better Science for Future Us**: National Center for Ecological Analysis and Synthesis, UC Santa Barbara (Online)
2021	**Using Google Earth Engine for Land Monitoring Applications**: National Aeronautics and Space Administration (NASA) (Online)
2017	**Place-based transdisciplinary research for Global Sustainability**: Programme on Ecosystem Change and Society (Oaxaca, Mexico)
2016	**Forest Monitoring with CLASlite**: Carnegie Institution for Science (Washington D.C., USA)
2014	**Methodological approaches to the study of compensation mechanisms focused on conservation**: Institute of Geography, National Autonomous University of Mexico (Mexico City, Mexico)
2014	**Management of socio-ecological systems to support decision-making**: Faculty of Sciences, National Autonomous University of Mexico (Mexico City, Mexico)

Teaching Experience

S2 2026	**Main instructor**: Landscape Ecology (New Mexico State University)
S1 2025	**Teaching assistant**: Introduction to Environmental Studies (Rutgers University)
S2 2024	**Guest lecturer**: Geographic Information Systems (National Autonomous University of Mexico)
S2 2024	**Teaching assistant**: Transforming the Global Environment (Rutgers University)
S1 2023	**Main instructor**: Maps Power and the Digital World (Rutgers University)
S2 2022	**Teaching assistant**: Remote Sensing (Rutgers University)
S2 2022	**Teaching assistant**: Earth Systems (Rutgers University)
S2 2022	**Guest lecturer**: Remote Sensing (National Autonomous University of Mexico)
S1 2022	**Teaching assistant**: Remote Sensing (Rutgers University)
S2 2021	**Guest lecturer**: Geographic Information Systems (National Autonomous University of Mexico)
S1 2021	**Guest lecturer**: Latin America (Environment and Society) (Rutgers University)
S2 2019	**Teaching assistant**: Biostatistics (National Autonomous University of Mexico)
S1 2019	**Teaching assistant**: Biostatistics (National Autonomous University of Mexico)

University and Professional Service

2021-2022 **President**: The Graduate Geographers Project, Rutgers University (New Jersey , USA)

2021-2023 **Trustee fellow**: The Nature Conservancy (New Jersey, USA)

2020 **Reviewer**: Journal of Land Use Science (Taylor and Francis press)

2024-2025 **Selection Committee for Fulbright-García Robles grantees of the U.S. Scholars**: Fulbright- U.S. - Mexico Commission for Educational and Cultural Exchange (COMEXUS) (Mexico City)

2024 **Mentor and evaluator**: US. Forest Service – Colegio de Bachilleres Tecnico Forestal 007 (Campeche)

2025 **Reviewer**: Biotropica (Wiley)

2026 **Reviewer**: Land Systems Journal (Copernicus Publications)

Skills

Content Management Systems: Joomla, Quarto

DevOps: Docker, MySQL

Front-end: Markdown, HTML5, CSS

GIS: ArcGIS Pro, IDRISI / TERRSET, DINAMICA EGO, Terrset

Office suite and design: Photoshop, InDesign, Microsoft Office (Macros and Visual Basic)

Programming: R, Python, Latex

Project management: Trello, Slack

Remote Sensing: ENVI, PCI Geomatica, ERDAS, CLASLITE, Google Earth Engine (JavaScript)

Social data analysis: UCINET, Super Decisions, Atlas.ti

Version control systems: Git, Github