

# Carlos D. Ramirez-Reyes

Department of Forest and Wildlife Ecology

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## Education

- 2016            Ph.D. Forestry  
University of Wisconsin-Madison; Forest and Wildlife Ecology Department  
Dissertation: Improving forest fragmentation detection in Mexico and assess jaguar habitat in Central Mexico  
Advisor: Volker Radeloff
- 2010            M.Sc. Applied Ecology  
University of Poitiers, FR; University of Kiel, DE; University of East Anglia, UK.  
Master thesis: Biodiversity and landscape patterns in agricultural and riparian systems in Deux-Sevres, France, and Sankt Veit der Glan, Austria  
Advisors: Catherine Souty-Grosset and Gael Freyssinel
- 2008            B.Sc. Biology  
National Autonomous University of Mexico (UNAM); Faculty of Sciences  
Final senior thesis: Modelling land cover change in coffee growing areas in southern Mexico  
Advisor: Gustavo Cruz-Bello

## Professional experience

- 2013-2015        University of Wisconsin Madison  
Position: NASA fellow  
Processed and analyzed remote sensing data looking for forest changes in Mexico
- 2011 -2013        University of Wisconsin – Madison  
Position: Research Assistant  
GIS and remote sensing contributor for the project: Assessment of Mexico's Payment for Ecosystem Services Program
- 2010            University of Poitiers  
Position: Internship  
Created a GIS database for two local agricultural and riparian landscapes in Deux-Sevres, France, and Sankt Veit an der Glan, Austria
- 2007-2008        Mexico's National Forestry & Livestock Researching Institute  
Position: Geomatics Technician Assistant  
Analyzed spatial databases and classified Spot imagery for ongoing lab projects
- 2005-2006        Servicios Tecnicos Forestales y Ambientales  
Position: Forest Technician Assistant  
Collected forest survey data and created documents for environmental impact assessment evaluations, local ecotourism projects and forest management programs

## Awards and fellowships

2012-2015	NASA; Earth and Space Science Fellowship \$90,000
2014	UW-Madison; FWE department travel grant \$400
2013	University of Greifswald (Germany); Travel grant \$1,000
2008-2010	European Commission; Erasmus Mundus Fellowship €42,000
2006-2008	UNAM (Mexico); Science Communication Fellowship \$3,600

## Indexed Publications

- Ramirez-Reyes, C.**, Bateman, B. L., and Radeloff, V. C. 2016. Effects of habitat suitability and minimum patch size thresholds on the assessment of landscape connectivity for Jaguars in the Sierra Gorda, Mexico. *Biological Conservation* 204 (B) 296–305
- Sims, K., Alix-Garcia, J., Shapiro-Garza, E., Fine, L., Radeloff, V. C., Aronson, G., Castillo, S., **Ramirez-Reyes, C.** and Yañez-Pagans, P. 2014. Improving environmental and social targeting through adaptive management in Mexico's payments for hydrological services program. *Conservation Biology* 28 (5) 1151-1159

## Manuscripts in review

- Ramirez-Reyes, C.**, and Radeloff, V. C. Use of Spectral Mixture Analysis in STARFM fusion images to assess deforestation in diverse forest types in Mexico. In review at *Remote Sensing of Environment*
- Ramirez-Reyes, C.**, Potapov, P., Sims, K and Radeloff, V.C. Payment for ecosystem services in Mexico reduced forest fragmentation. In review at *Ecological Applications*

## Work in Progress

- Bragina, E., Buchner, J., **Ramirez-Reyes, C.**, Shchur, A., and Radeloff, V. C. Protected area effectiveness in the Altai Krai region during the post-socialist period
- Politi, N., Rivera, L., **Ramirez-Reyes, C.**, Martinuzzi, S., Tallei, E., Schaaf, A., Hobi, M., Radeloff, V., Pidgeon A. Threatened species as effective surrogates to allocate priority areas for conservation of less conspicuous interior forest bird species

## Technical Reports

- Alix-Garcia, J., Aronson, G., Radeloff, V., **Ramirez-Reyes, C.**, Shapiro, E., Sims, E. and Yanez-Pagans P. 2014. Evaluation of Conafor's payment for hydrological services program, 2003-2010. Technical report. UW-Madison

## Conference Presentations with Published Proceedings

- 2016 **Ramirez-Reyes, C.** and Radeloff, V. C. Use of Spectral Mixture Analysis in STARFM fusion images to assess deforestation in diverse forest types in Mexico. Society for Conservation Biology meeting. July 18-20 , Madison, Wisconsin, USA (Poster)

- 2014 **Ramirez-Reyes, C.** and Radeloff, V. C. Potential habitat mapping for Jaguars in the Sierra Gorda Biosphere Reserve in central Mexico: Priority conservation sites for habitat connectivity. Society for Conservation Biology meeting. July 13-16 , Missoula, Montana, USA (Poster)
- 2013 **Ramirez-Reyes, C.**, Aronson, G., Radeloff, V. C. and E. J. Duerr. Deforestation detection in Mexico using remote sensing. NASA Land-Use/ Land-Cover Change Science Team Meeting. April 2-4, Rockville, Maryland, USA (Poster)

### Invited Presentations

- 2013 **Ramirez-Reyes, C.** Monitoring deforestation to evaluate Mexico's payments for ecosystem services (*German environmental study programs, alumni meeting*), October 11, Greifswald, Germany
- 2012 **Ramirez-Reyes, C.**, Aronson, G. and V. C. Radeloff. Measuring forest changes in Mexico using remote sensing (*CONAFOR and UW-Madison Partnership Meeting*), November 7, Guadalajara, Mexico
- 2011 **Ramirez-Reyes, C.** Long term monitoring of deforestation (*CONANP & UW-Madison Partnership meeting*), June 4, Jalpan de Serra, Queretaro, Mexico
- 2008 **Ramirez-Reyes, C.** Observing vegetation using satellite images (*La ciencia desde el museo series*), Aug 10, UNAM, Museum of Sciences, Mexico City, Mexico
- 2006 **Ramirez-Reyes, C.**, Ramirez-Martinez, E. and J. Castellanos. Soil removal and its consequences in Mexico city's protected areas (*Natural Resources winning projects series*), May 23, UNAM, School of Sciences, Mexico City, Mexico

### Mentoring and teaching

- 2016 Laboratory teaching assistant for Intro to Biology Spring & Fall terms, UW-Madison
- 2015 Laboratory teaching assistant for Intro to Biology Fall term , UW-Madison
- 2013 Mentor for four undergraduate student assistants in digital image analysis projects, Jan-May, UW-Madison
- 2012 Co-instructor in a Landsat imagery processing workshop, Nov 7-9, Guadalajara
- 2012 Teaching assistant at Forestry Summer Camp, July 13-15, UW-Madison
- 2008 Biology teacher for prospective university students, Jan-May, Comité Estudiantil Mexico

### Outreach

- 2006- 2008 UNAM Museum of Sciences  
Presented talks and demonstrations about biodiversity and astronomy topics to general audiences
- 2015 Foodkology, Organized a storytelling event for ecologist across UW-Madison

### Technical skills

Excellent Command of Windows, Microsoft Office tools, ArcGIS, R, ENVI, Erdas Imagine, Maxent, MSPA, Conefor Sensinode, Fragstats. Working knowledge of SQL, Python, and Linux

### Training and professional development

Data and Software Carpentry workshops, Proposal writing, Improv for Scientists, NEON data skills, COMPASS Scientific Communication workshop, Natcap intro to Ecosystem Services

## **Languages**

Spanish: Native; English: C1 (Fluent both written and spoken); French: B2 (Intermediate)  
Italian, German: A2 (Beginner)

## **Professional memberships**

NSF IGERT Program in Novel Ecosystems (Associate member)

Society for Conservation Biology (Student member)

Latin American Society for Remote Sensing and Spatial Information Systems (Student member)

Alumni Network for Environment, Sustainability and Conservation, Germany (Member)