

# Marcelo Fernando Amores Palma

Ingeniero en Medio Ambiente  
Tanicuchí - Latacunga - Ecuador

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## Instrucción Formal

### 1. Ingeniero en Medio Ambiente

2014 - 2019

No. Reg. SENESCYT: 1020-2019-2117042

Facultad de Ciencias Agropecuarias y Recursos Naturales - CAREN, Universidad Técnica de Cotopaxi, Latacunga - Ecuador. *Mejor Graduado de la Carrera de Ingeniería Ambiental*

### 2. Bachiller en Ciencias Químico Biológicas

Unidad Educativa Marco Aurelio Subía Martínez, Latacunga - Ecuador. *Abanderado del Pabellón Nacional*

Unidad Educativa Toacazo, Latacunga - Ecuador. *Abanderado del Pabellón Nacional*

## Experiencia Profesional

### Tesista

**Empresa Pública Metropolitana de Agua Potable y Saneamiento - EPMAPS & Fondo para la Protección del Agua - FONAG**

Distrito Metropolitano de Quito - Ecuador

ago 2018 - ago 2019 (1 año)

1. Análisis de información de calidad de agua de las fuentes de captación que abastecen a los diferentes sistemas de agua potable del Distrito Metropolitano de Quito
2. Análisis de información hidrometeorológica de las zonas de interés de la EPMAPS
3. Elaboración de informes técnicos de recursos hídricos.

### Investigador

**Estación Científica Agua y Páramo. Empresa Pública Metropolitana de Agua Potable y Saneamiento, Fondo para la Protección del Agua & Universidad Técnica de Cotopaxi, Facultad CAREN, Carrera de Ingeniería Ambiental**

jun 2018 - ago 2019 (1 año y 3 meses)

**Amores M.** 2019. "Evaluación de la variación de la calidad del agua en alta del río Pita" Facultad de Ciencias Agropecuarias y Recursos Naturales; Carrera de Ingeniería Ambiental

### Voluntario

**Programa de vinculación con la comunidad. Universidad Técnica de Cotopaxi**

Latacunga - Ecuador

sep 2017 - mar 2018 (6 meses)

1. Propuesta de repotenciación de turismo ecológico en la cara sur del volcán Cotopaxi.
2. Reforestación del sendero de ingreso la cara sur del volcán Cotopaxi.
3. Capacitación en manejo de residuos sólidos

### Conferencias

**Gobierno Autónomo Descentralizado de la Provincia de Cotopaxi. Universidad Técnica de Cotopaxi**

Latacunga - Ecuador

26 nov 2019

Gestión de los Recursos Hídricos como estrategia de adaptación al cambio climático.

## *Ponencias*

### **I Jornada de Difusión de la Investigación Ambiental. Universidad Técnica de Cotopaxi, Carrera de Ingeniería Ambiental**

Latacunga - Ecuador

15 - 17 jul 2019

Ponencia: "Evaluación de la variación de la calidad del agua en alta del río Pita"

## **Capacitaciones**

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### *Seminarios*

#### **Seminario Nacional Ambiental**

Latacunga - Ecuador

abr 2018 (16 horas)

Universidad Técnica de Cotopaxi

Gobierno Autónomo Descentralizado de la Provincia de Cotopaxi

#### **III Seminario Científico Internacional de Cooperación Universitaria para el Desarrollo Sostenible**

Latacunga - Ecuador

nov 2017 (40 horas)

Universidad Técnica de Cotopaxi

Casa de la Cultura Núcleo de Cotopaxi

Red Iberoamericana de Medio Ambiente

Ecuador Conventions

Centro Ecuatoriano para el Desarrollo Sostenible

### **Agroecología**

Latacunga - Ecuador

abr - ago 2017 (50 horas)

Universidad Técnica de Cotopaxi. Facultad CAREN, Carrera de Ingeniería Ambiental

### **Desastres Naturales**

Latacunga - Ecuador

oct 2016 - mar 2017 (50 horas)

Universidad Técnica de Cotopaxi. Facultad CAREN, Carrera de Ingeniería Ambiental

### *Diplomados*

#### **Diplomado en Desarrollo de Estrategias Digitales de Aprendizaje**

México, Online

2015 - 2017 (369 horas)

Horas equivalentes a 37 créditos académicos correspondientes al nivel 6 del Marco Mexicano de Cualificaciones

Sistema Educativo Nacional

La Dirección General de Televisión Educativa

Centro de Capacitación Televisiva

Impartido por el Centro de Capacitación Televisiva y la Fundación Carlos Slim a través de la plataforma

Capacítate para el Empleo

#### **Diplomado en Técnico en Integridad Web**

México, Online

2015 - 2017 (273 horas)

Horas equivalentes a 27 créditos académicos correspondientes al nivel 6 del Marco Mexicano de Cualificaciones

Sistema Educativo Nacional  
La Dirección General de Televisión Educativa  
Centro de Capacitación Televisiva  
Impartido por el Centro de Capacitación Televisiva y la Fundación Carlos Slim a través de la plataforma  
Capacítate para el Empleo

### **Diplomado Técnico en Big Data**

México, Online 2019

(Diploma en proceso de entrega)

Sistema Educativo Nacional  
La Dirección General de Televisión Educativa  
Centro de Capacitación Televisiva  
Impartido por el Centro de Capacitación Televisiva y la Fundación Carlos Slim a través de la plataforma  
Capacítate para el Empleo

### **Diplomado en Gestión de Ambientes Virtuales de Aprendizaje**

México, Online 2019

(Diploma en proceso de entrega)

Sistema Educativo Nacional  
La Dirección General de Televisión Educativa  
Centro de Capacitación Televisiva  
Impartido por el Centro de Capacitación Televisiva y la Fundación Carlos Slim a través de la plataforma  
Capacítate para el Empleo

### **Diplomado en Desarrollo de sitios web y aplicaciones móviles**

México, Online 2019

(Diploma en proceso de entrega)

Sistema Educativo Nacional  
La Dirección General de Televisión Educativa  
Centro de Capacitación Televisiva  
Impartido por el Centro de Capacitación Televisiva y la Fundación Carlos Slim a través de la plataforma  
Capacítate para el Empleo

### *Certificaciones*

#### **Competencias digitales para profesionales**

Online – Google Activate Sep 2019 (40 horas)

Fundación Santa María La Real

#### **Comercio electrónico. E-Commerce**

Online – Google Activate Sep 2019 (40 horas)

EOI - Escuela de Organización Industrial

#### **Transformación digital para el empleo**

Online – Google Activate Sep 2019 (40 horas)

EOI - Escuela de Organización Industrial

## **Cloud Computing**

Online – Google Activate

Sep 2019 (40 horas)

EOI - Escuela de Organización Industrial

## **Desarrollo de Apps Móviles**

Online – Google Activate

Sep 2019 (40 horas)

UCM - Universidad Complutense de Madrid

## **Introducción al Desarrollo Web: HTML y CSS II**

Online – Google Activate

Sep 2019 (40 horas)

Instituto de Economía Internacional. Universidad de Alicante - España

## **Capacitación a los sujetos de control en planes de manejo ambiental, planes de acción, planes de emergencia, informes de cumplimiento, y auditorías en el cantón Latacunga, enfocado en la educación sobre los problemas de cambio climático**

Latacunga - Ecuador

Nov 2018 (8 horas)

Gobierno Autónomo Descentralizado de la Provincia de Cotopaxi

## **Introducción al Cambio Climático**

Online – UN CC:LEARN

Feb 2017 (12 horas)

United Nations institute for Training and Research UNITAR

Asociación para el Aprendizaje sobre el Cambio Climático

## **Módulo especializado sobre la Salud Humana y el Cambio Climático**

Online – UN CC:LEARN

Feb 2017 (2 horas)

United Nations Institute for Training an Research UNITAR

Asociación para el Aprendizaje sobre el Cambio Climático, Organización Mundial de la Salud OMS

## **Productividad Personal**

Online – Google Activate

Feb 2017 (40 horas)

Fundación Santa María La Real

## **Curso de Introducción al Desarrollo Web: HTML y CSS I**

Online – Google Activate

Ene 2017 (40 horas)

Instituto de Economía Internacional. Universidad de Alicante - España

## *Talleres*

## **Ciencia aplicada a la toma de desiciones de gestores de agua**

Quito - Ecuador

Jul 2019

Instituto Francés de Investigación para el Desarrollo (IRD)

Pontificia Universidad Católica de Quito (PUCE)

Empresa Pública Metropolitana de Agua Potable y Saneamiento (EPMAPS)

\*\*Fondo para la Protección del Agua (FONAG)

## **Curso - taller: Sistemas de Información Geográfica para la planificación ordenamiento del territorio**

Latacunga - Ecuador

Nov 2017 (40 horas)

Universidad Técnica de Cotopaxi

Red Iberoamericana de Medio Ambiente

Ecuador Conventions

## **Reconocimientos**

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### **Mejor Graduado de la Carrera de Ingeniería Ambiental**

Facultad de Ciencias Agropecuarias y Recursos Naturales - CAREN, Universidad Técnica de Cotopaxi

Latacunga - Ecuador

2019

### **Beca al mérito académico**

Carrera de Ingeniería Ambiental. Facultad de Ciencias Agropecuarias y Recursos Naturales - CAREN, Universidad Técnica de Cotopaxi

Latacunga - Ecuador

2014 - 2019

### **Abanderado del Pabellón Nacional. Secundaria**

Unidad Educativa Marco Aurelio Subía Martínez

Tanicuchí - Latacunga - Ecuador

2012 - 2013

### **Mejor estudiante de la asignatura de Inglés**

Unidad Educativa Marco Aurelio Subía Martínez

Tanicuchí - Latacunga - Ecuador

2007 - 2013

### **Abanderado del Pabellón Nacional. Primaria**

Unidad Educativa Toacazo, Latacunga - Ecuador

Toacaso - Latacunga - Ecuador

2006 - 2007

## **Referencias**

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### *Profesionales*

**M.Sc. Kalina Fonseca.** Tutora de tesis de pregrado. Universidad Técnica de Cotopaxi. Docente de la carrera de ingeniería Ambiental. Coordinadora de Proyecto de Investigación "Recursos Hídricos - Calidad de agua".

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o 996 267 102

**Ph.D. Mercy Ilbay.** Coautora de tesis de pregrado. Universidad Técnica de Cotopaxi. Docente de la carrera de ingeniería Ambiental.

mercy.ilbay@utc.edu.ec

o 987 533 861

**M.Sc. Darwin Bohórquez.** Tutor institucional de pasantía y tesis de pregrado. Empresa Pública Metropolitana de Agua Potable y Saneamiento. Departamento de Gestión de Recursos Hídricos. Jefe de la Unidad de Manejo de Cuencas Hidrográficas y Limnología

darwin.bohorquez@aguaquito.gob.ec

022 994 400 Ext. 6013

===== #\* Plantilla de CV adaptada de \* [S. Miller] ( <https://github.com/svmiller/svm-r-markdown-templates>)  
>>>>>> b78095d841e1fc4eb54a5cbbd010e517a6c9a3co  
#[Versión en PDF disponible] ( [https://github.com/TrashBirdEcology/cv/blob/master/burnett\\_extendedCV.pdf](https://github.com/TrashBirdEcology/cv/blob/master/burnett_extendedCV.pdf))

Educación == == == == =

**\*\* Doctorado, Ciencias de Recursos Naturales, Especialización en Ecología Aplicada \*\*** 2015 - 19 Escuela de Recursos Naturales, Universidad de Nebraska-Lincoln, Nebraska, EE. UU.

<! - - Disertación: Métodos de detección de regímenes para el ecólogo práctico -> <! - - Prestigiosa investigación de verano financiada durante el año sabático en IIASA en Laxenburg, Austria -> <! - - Destinatario de 2 becas universitarias y premio de estudiante de doctorado meritorio -> **\*\* M.Sc., Wildlife Ecology & Conservation \*\*** 2013 - 15 Department of Wildlife Ecology & Conservation, University of Florida, Florida USA

<! - - Tesis: Gorrión \* (*Passer domesticus*) \* disminución y distribución en América del Norte -> **\*\* B.Sc. Wildlife Ecology & Conservation \*\*** 2010 - 13 Departamento de Ecología y Conservación de la Vida Silvestre, Universidad de Florida, Florida, EE. UU. UU.

## Skills Highlight

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Languages: R, LaTeX, MatLab, HTML, English  
Reproducibility and open science  
Applied statistics  
Avian community and population ecology  
Population trend and parameter estimation

## Professional Experience

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**Research Ecologist & Mendenhall Postdoctoral Fellow** September 2019 - present

Science Analytics and Synthesis, Core Science Systems  
U.S. Geological Survey, Lakewood, Colorado, USA

**Graduate Research Assistant** August 2015 - August 2019

Nebraska Cooperative Fish & Wildlife Research Unit  
School of Natural Resources  
Department of Agronomy & Horticulture  
University of Nebraska-Lincoln, Nebraska, USA

**Young Scholar** May 2018 - September 2018

Applied Systems Analysis Research Group  
International Institute for Applied Systems Analysis Laxenburg, Austria

**Graduate Teaching Assistant** August 2013 - August 2015

Department of Wildlife Ecology & Conservation  
University of Florida, Florida, USA

**Geospatial Analyst Intern** April 2012 - August 2012

Florida Fish and Wildlife Research Institute Gainesville, Florida, USA

**Research Assistant** January 2011 - April 2012

Avian Ecology and Conservation Lab University of Florida, Gainesville, FL, USA

**Crew Leader, Smithsonian Fellow** April-September 2011 and April-September 2013

Neighborhood Nestwatch Program  
Smithsonian Migratory Bird Center, Gainesville, FL, USA

## Publications

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1. **Burnett, J.L.**, L.S. Wszola, and G. Palomo-Munoz. 2019. bbsAssistant: An R package for downloading and handling data and information from the North American Breeding Bird Survey. *Journal of Open Source Software*, 4(44), 1768, DOI: [10.21105/joss.01768](https://doi.org/10.21105/joss.01768)
2. Donovan, V.M., **J.L. Burnett**, C.H. Bielski, H.E. Birge, R. Bevens, D. Twidwell, and C.R. Allen. 2018. Social-ecological landscape patterns predict woody encroachment from native tree plantings in a temperate grassland *Ecology and Evolution* 8(19): 9624-9632 DOI:10.1002/ece3.4340
3. **Burnett, J.L.**, K.L. Pope, A. Wong, C.R. Allen, D.M. Haak, B.J. Stephen, and D.R. Uden. 2018. Thermal tolerance limits of the invasive Chinese mysterysnail *Bellamya chinensis* and implications for management". *American Malacological Bulletin* 36(1): 140-144 DOI:10.4003/006.036.0106
4. Roberts, C.P., D. Twidwell, **J.L. Burnett**, V.M. Donovan, C. Wonkka, C.H. Bielski, A.S. Garmestani, D.G. Angeler, T. Eason, B.W. Allred, M.O. Jones, D.E. Naugle, S. Sundstrom, C.R. Allen . 2018. Early warnings for state transitions. *Rangeland Ecology and Management* DOI:10.1016/j.rama.2018.04.012
5. La Sorte, F.A., C.A. Lepczyk, **J.L. Burnett**, A. Hurlbert, M. Tingley, and B. Zuckerberg. 2018. Opportunities and challenges for big data ornithology. *The Condor* 120(2): 414-426 DOI:10.1650/CONDOR-17-206.1
6. Chuang, W.C., A.S. Garmestani, T. Eason, T.L. Spanbauer, H.B. Fried-Peterson, C. Roberts, S. Sundstrom, **J.L. Burnett**, D. G. Angeler, B. Chaffin, L. Gunderson, D. Twidwell, C.R. Allen. 2018. Enhancing quantitative approaches for assessing ecological and community resilience. *Journal of Environmental Management* 213: 353-362 DOI:10.1016/j.jenvman.2018.01.083
7. **Burnett, J.L.**, C.R. Allen, C.P. Roberts, M.Bomberger Brown, and M.P. Moulton. 2017. Eurasian Tree Sparrow (*Passer montanus*) range expansion in North America. *Biological Invasions* 19(1): 5-9 DOI:10.1007/s10530-016-1273-4
8. **Burnett, J.L.** and K.E. Sieving. 2016. Songbird distress call as a detection enhancement method and application to Red-shouldered Hawks (*Buteo lineatus*). *Florida Field Naturalist* 44(4):157-168
9. C.R. Allen, H.E. Birge, S.L. Bartlett-Hunt, R.A. Bevens, **J.L. Burnett**, B.A. Cosens, X. Cai, A.S. Garmestani, I. Linkov, E.A. Scott, M.D. Solomon, and D.R. Uden. 2016. Avoiding decline: Fostering resilience and sustainability in midsize cities. *Sustainability* 8(9):844-868 DOI:10.3390/su8090844
10. **Burnett, J.L.** and M.P. Moulton. 2015. Recent trends in House Sparrow (*Passer domesticus*) distribution and abundance in Gainesville, Alachua County, Florida. *Florida Field Naturalist* 43(4):167-172

## Book Chapters

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1. **Burnett, J.L.** and C.R. Allen (2020) Continental Analysis of Invasive Birds: North America *in* Downs, C.T. and Hart, L.A. (eds) Global trends and impacts of alien invasive birds. CABI, Wallingford, U.K., pp. XX-XX.

## Manuscripts Under Review (primary author)

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1. **Burnett, J.L.**, N.B. Price, A.J. Tyre, D.G. Angeler, T. Eason, D. Twidwell., and C.R. Allen. Deconstructing the steps for calculating Fisher Information as a measure of abrupt change in ecological systems. *under review at Ecological Modelling*
2. **Burnett, J.L.**, R. Wilcox, B. Stephen, D. Haak, D. Uden, C.R. Allen, and K. Pope. Shell strength does not limit predation of an invasive snail species (*Bellamya chinensis*) by native fish. *under review at Malacological Bulletin*

## Manuscripts in Preparation (primary author)

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1. **Burnett, J.L.**, Kratter, A. and Robinson, S.K. Using a Christmas Bird Count to understand local and regional changes in bird populations in Northcentral Florida.
2. **Burnett, J.L.**, N.B. Price, C.R. Allen, D. Twidwell, A.J. Tyre. Velocity of distance travelled as a measure of ecosystem trajectory and abrupt change.
3. **Burnett, J.L.**, Z. Warren, M. Podebrovska, B. Dueker, K. Lamke, B. Seguin, D. Twidwell, and C.R. Allen. Sexual size dimorphism in mammalian communities of Mediterranean Australian regions.
4. **Burnett, J.L.**, L. Wszola, N. Mirochnitchenko, E. Stuber, M. Bomberger Brown, C.R. Allen, D. Twidwell, and J. Carroll. Large-scale crop patterns influence Gray Partridge (*Perdix perdix*) site occupancy in North America.
5. **Burnett, J.L.**, B.D. Fath, E. Rovenskaya, and A.J. Tyre. Effects of data quality and quantity on inference gained from regime shift detection methods.

## Software

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### *Author and maintainer*

1. **Burnett, J.L.**, L.S. Wszola, and G. Palomo-Munoz. 2019. bbsAssistant: An R package for downloading and handling data and information from the North American Breeding Bird Survey: U.S. Geological Survey software release. DOI: [10.5066/P93WoEAW](https://doi.org/10.5066/P93WoEAW). [GitHub repository](#).
2. **Burnett, J.L.**, N.B. Price. 2019. regimeDetectionMeasures. An R package for calculating univariate and multivariate regime detection methods using community time series. [Github:trashbirdecology/regimedetectionmeasures](#)
3. **Burnett, J.L.**, N.B. Price, and A.J. Tyre. 2018. distanceTravelled. An R package for calculating the distance traveled by a multispecies community along a time series. [Github:trashbirdecology/distancetravelled](#)

### *Author*

1. Price, N.B. and **J.L. Burnett**. tvdiff. 2019. An R package for numerical differentiation of noisy, non-smooth data. [Github:natbprice/tvdiff](#)
2. Price, N.B., C. Chizinski, and **J.L. Burnett**. radsets. 2019. An R package for interactive, network-based visualizations of overlapping sets. [Github:natbprice/radsets](#)

## Grants in Review

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Integrating Two Foundational USGS Data Products: the Breeding Bird Survey (BBS) and the Bird Banding Lab (BBL) Data, Community for Data Integration, U.S. Geological Survey in review

## Grants & Fellowships

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Co-PI, CIEE/ICEE Working Group: Creating a unified approach to evaluate regime shift detection methods, **\$12,400 CA2020**

Mendenhall Postdoctoral Fellowship, U.S. Geological Survey **~\$222,000** 2019 - 21

[Meritorious Graduate Student](#), School of Natural Resources, UNL **\$500** 2018

Participant, [Research Collaboration Workshop for Women in Mathematical Biology](#), NIMBIOS 2018

Fling Fellow, University of Nebraska-Lincoln **\$20,000** 2016 - 17

Othmer Fellow, University of Nebraska-Lincoln **\$24,000** 2015 - 19

Big Ten Academic Alliance Travelling Scholar 2017

AAAS/Science Program for Excellence in Science Award 2016

Graduate Fellow, Center for Great Plains Studies, University of Nebraska 2016 - 18

2nd place, School of Natural Resources Elevator Speech Competition **\$300** 2016



## Honors & Awards

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School of Natural Resources, University of Nebraska-Lincoln \$750 2019  
University of Nebraska Graduate Travel Fund \$750 2019  
Association for Women in Mathematical Biology \$650 2019  
School of Natural Resources, University of Nebraska-Lincoln \$1050 2019  
National Academy of Sciences research award \$5,500 2018  
National Science Foundation & NimBios \$550 2018  
Kellogg Biological Station, Michigan State University \$500 2017  
Nelson Memorial Fellowship, University of Nebraska-Lincoln \$3,217 (3x recipient) 2016 - 18  
Center for Great Plains Studies, University of Nebraska-Lincoln \$3,000 (4x recipient) 2015 - 18  
American Ornithologists' Union \$250 2016  
NSF Diversity Award, Southeastern Ecology and Evolution Conference \$650 2015  
Graduate Student Council, University of Florida \$350 2015  
Office of Research, University of Florida \$500 2015  
Department of Wildlife Ecology & Conservation, University of Florida \$500 (2x recipient) 2014 - 15  
Office of the Dean, Institute of Food and Agricultural Sciences, University of Florida \$750 2013  
American Ornithologists' Union Undergraduate Student Membership Award 2013  
IFAS Extension Internship for Undergraduate Research, University of Florida \$2,200 2013  
Ordway-Swisher Biological Station Undergraduate Research Grant, University of Florida \$550 2013

## Teaching Experience

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**Co-instructor** Introduction to Applied Ecological Statistics, Kearney, NE 2017

**Instructor** Introduction to Program R 2017

**Guest Lecturer** Module: using citizen science data to understand ecological invasions; Course: Avian Invasions 2016

**Teaching Assistant** Wildlife Population Ecology, Department of Wildlife Ecology & Conservation, University of Florida 2015

**Teaching Assistant** Ecological Statistics, Department of Wildlife Ecology & Conservation, University of Florida 2015

**Guest Lecturer** Wetland birds module, Florida Master Naturalist 2013

## Organized Sessions & Symposia

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1. Using the integrated modelling framework to bridge science and decision making: advances, applications, and opportunities. Co-organizer with J.A. Royle. Ecological Society of America conference, **in review**
2. Opportunities and Challenges in Big Data Ornithology. Co-organizer with F. LaSorte and C. Lepczyk. North American Ornithological Conference V, Washington, D.C., 2016

## Research Presentations Given

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*invited*

1. Regime Detection Measures for the Practical Ecologist, Department of Wildlife Ecology & Conservation, University of Florida, 2019

2. Detecting abrupt change in bird community time series using distance travelled. *Association for Women in Math Biology Symposium*, Special session “Current Challenges in Mathematical Biology”, Houston, TX, 2019
3. Decline of the Once-Ubiquitous House Sparrow in North America. *Nebraska Invasive Species Council*, Lincoln, NE, 2015

contributed

1. **Burnett, J.L.**, N.B. Price, and A.J. Tyre. A novel method for tracking ecosystem trajectory and abrupt change in space-time: distance traveled. *International Association for Landscape Ecology*, Oral presentation. Fort Collins, CO, 2019
2. **Burnett, J.L.**, R. Crystal-Ornelas, D. Fogarty, K. Hogan, C.R. Allen, M. Bomberger Brown, D. Twidwell, and C.A. Lepczyk. Impacts of non-native birds on native wildlife in urban ecosystems: where is the evidence? *Natural Areas Conference*, Oral presentation. Indiana, 2018
3. **Burnett, J.L.**. Advances in ecological regime shift detection, *International Institute for Applied Systems Analysis*, Oral presentation. Laxenburg, Austria, 2018
4. **Burnett, J.L.**, N.B. Price, A.J. Tyre, T.J. Hefley, C.R. Allen, T. A. Eason, D.G. Angeler, and D. Twidwell. Community velocity as a regime shift detection method. *Great Plains Grassland Summit*, Poster presentation. Denver, Colorado, 2018
5. **Burnett, J.L.**, L. Wszola, N. Mirochnitchenko, E. Stuber, M. Bomberger Brown, C.R. Allen, D. Twidwell, and J.P. Carroll. Gray partridge distribution in North America: Changing landscapes and environment for an introduced species. *Perdix XIV and IUGB*, Oral presentation by JPC, Montpellier, France, 2017
6. **Burnett, J.L.**, N.B. Price, A.J. Tyre, T.J. Hefley, C.R. Allen, T. A. Eason, D.G. Angeler, and D. Twidwell. System trajectory and Fisher information as early-warning indicators of ecological regime shifts. *Resilience 2017: Resilience Frontiers for Global Sustainability*, Poster presentation. Stockholm, Sweden, 2017
7. **Burnett, J.L.**, N.B. Price, A.J. Tyre, T.J. Hefley, C.R. Allen, T. A. Eason, D.G. Angeler, and D. Twidwell. System trajectory and Fisher information as early-warning indicators of ecological regime shifts. *Ecological Society of America*, Poster presentation. Portland, OR, 2017
8. **Burnett, J.L.**, Roberts, C.P., Allen, C.R., Angeler, D.G., Twidwell, D., and Tyre, A.J. Ecological Regime Shifts in the Central Great Plains. *Great Plains Symposium*, Oral presentation. Nebraska Innovation Campus, Lincoln, NE, 2017
9. **Burnett, J.L.**, Roberts, C.P., Allen, C.R., Angeler, D.G., Twidwell, D., and Tyre, A.J. Using Big Data to Detect Regime Shifts in Space and Time. *North American Ornithological Conference VI*, Poster presentation. Smithsonian Migratory Bird Institute, Washington, D.C., 2016
10. **Burnett, J.L.**, Moulton, M. P., Sieving, K.E., Avery, M., and Robinson, S.K. Are House Sparrow declines a byproduct of urban greening? *Southeastern Ecology and Evolution Conference*, Oral presentation. University of Georgia, Athens, GA, 2015
11. **Burnett, J.L.**, Moulton, M. P., Sieving, K.E., Avery, M.L., and Robinson, S.K. Are House Sparrow declines a byproduct of urban greening? *American Ornithologists' Union and Cooper Ornithological Society Annual Meeting*, Poster presentation. Norman, OK, 2015
12. **Burnett, J.L.**, Moulton, M.P., and Sieving, K.E. House sparrow: the decline of a once ubiquitous, invasive species. *Florida Chapter of The Wildlife Society Annual Conference*, Poster presentation. Safety Harbor, FL, 2014.

13. **Burnett, J.L.**, Moulton, M. P., Sieving, K.E., Avery, M.L., and Robinson, S.K. House Sparrow decline and distribution in North Central Florida. *Florida Cooperative Fish and Wildlife Research Unit annual cooperators meeting*, Poster presentation. Gainesville, FL, 2014
14. **Burnett, J.L.** and Sieving, K.E. Detecting birds of prey using tufted titmouse distress calls. *USGS Florida Cooperative Fish and Wildlife Research Unit Committee Meeting*, Poster presentation. Gainesville, FL, 2013
15. **Burnett, J.L.** and Sieving, K.E. Do actual and perceived risks of small forest birds align? *Florida Ornithological Society Conference*, Oral presentation, St. Petersburg, FL, 2013
16. **Burnett, J.L.** and Sieving, K.E. Perceived predation risks of small forest birds. *Association of Field Ornithologists Annual Conference*, Poster presentation. Venus, FL, 2013

## Scientific Outreach

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### Community Involvement

Letters to a Pre-scientist, United States, 2019-present

Skype a Scientist, United States, 2017-present

Co-PI, Community grant to develop on-site nature trail and viewing opportunities at the Reichert House, Gainesville, FL, 2014-15

Hands-on captive herpetological opportunities for studnets of the Reichert House, Gainesville, FL, 2014-15

Birdwatching and live banding demonstrations for K-12 students, A Girls' Place, Gainesville, FL, 2013-15

Science, mathematics and reading tutor for middle and high school students, Friends of the Micanopy Library, FL, 2011-13

Learning assistant and tutor for geometry and pre-calculus students, Valencia Community College, Oralndo, FL 2008-2010

### Blogs

[Connecting to nature and understanding ecosystem services: urban perspective](#), Envirobites

[Big data, big problems](#), Resilience Alliance

[Panarchy in the Anthropocene](#), Resilience Alliance - [Regime shifts, traps and how to deal with them](#), Resilience Alliance

[Connecting to nature and understanding ecosystem services: the urban perspective](#), Resilience Alliance

[Leadership resilience and your workplace](#), Resilience Alliance

### Radio

[House Sparrow declines in North American](#), Urban Wildlife Podcast

## Service

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### Journal Referee

*Bioinvasions Records* (1), *Ecological Modelling* (4), *Journal of Molluscan Studies* (2), *Journal of Open Source Software* (1), *PLOS One* (1), *Wilson Journal of Ornithology* (3)

Student liaison, [Urban Ecosystem Ecology Section](#), Ecological Society of America 2015 - 16

### University of Nebraska-Lincoln

Co-founder, Natural Resources Diversity Initiative committee, School of Natural Resources 2017

Co-founder, [Institutional membership to the Association for Women in Science](#) 2016

[Faculty Advisory Committee](#), School of Natural Resources 2016-18

Digital Team, School of Natural Resources 2016  
Organizer, Association for Women in Science [Mentor Workshop](#) 2016  
[Seminar](#) Coordinator, School of Natural Resources 2016  
Department Representative, UNL Graduate Student Association 2015 - 16

## Grey Literature

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### *White Papers*

1. **Burnett, J.L.**, Roberts, C.P., Allen, C.R., Angeler, D.G., Twidwell, D. 2017. White Paper: Regime Shift Detection Using Fisher Information. Strategic Environmental Research and Development Program (SERDP RC 25-10), Department of Defense.

### *Grant Reports*

1. Allen, CR, Angeler, DG, Twidwell, D., \*\* Burnett, JL \*\* , Roberts, CP 2017. Informe provisional (RC 25-10): Cambio global, vulnerabilidad y resiliencia: opciones de gestión para una incertidumbre Futuro. Programa Estratégico de Investigación y Desarrollo Ambiental (SERDP), Departamento de Defensa. 2. Twidwell D., Bielski, CH, \*\* Burnett, JL \*\* , Donovan, VM, Wonkka, CL 2017. Revisión de modelos de ajustes biofísicos (BpS) de LANDFIRE en las Grandes Llanuras. Proyecto Landfire.