

# DIANE LE BOUILLE

◇ Curriculum Vitae ◇

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Dept. of Ecology and Evolutionary Biology

437 Hesler Hall - University of Tennessee

Knoxville, TN 37996, U.S.A

## EDUCATION

### Ph.D. Student

2014 - Present

University of Tennessee

Knoxville, USA

### M.Sc. - Ecology, Biodiversity, Evolution - Specialization in Conservation

2011 - 2012

University P. and M. Curie

Paris, France

### M.Sc. - Ecology

2009 - 2010

University of Aberdeen

Aberdeen, Scotland

### B.Sc. - Organismal Biology

2008 - 2009

University of Bordeaux 1

Bordeaux, France

### French Prep. School - Mathematics, Physics, Chemistry, Geology and Biology

2006 - 2008

Montaigne

Bordeaux, France

## SKILLS

### Computer Languages

Python, R, C/C++, Matlab, VBA

### Theoretical knowledge

Ecology, Evolution, Conservation & Restoration Ecology

Micro Economics, Natural Resources Economics

Mathematical Optimization, Spatial Analysis, Statistics

### Field-Based skills

Fieldwork, Handling/Marking of Vertebrates,

Plant and Animal Systematics

### Ecological software & Tools

GIS tools (ArcGIS) and GPS tracking, Network sciences (Pajek, Netdraw)

Data bases (Access, phpMySQL), Optimization (Maple, GAMS)

## RESEARCH EXPERIENCE

### Costs of Protected Areas in the U.S.

PhD Dissertation - Paul ARMSWORTH

2014 - 2020

University of Tennessee, Knoxville

- Describing and explaining the spatial and temporal variations in conservation costs and funding for protected areas across the U.S.

### Behavioural Shifts and Human Avoidance in Wolves

Master Thesis 2 - Luigi BOITANI, Paolo CIUCCI

2012 - 7 months

University of Rome, Italy

- Activity budgets and movement patterns of GPS-collared wolves in the Abruzzo, Lazio and Molise National Park (central Italy) in relation to human activity in the park

### Road Kill Risk Assessment and Snake Conservation

2011 - 6 months

Master Thesis 1 - Jean CLOBERT, Xavier BONNET

CNRS Labs of Moulis (Eco-Ex) and Chizã (CEBC), France

- Demographic study of snake populations in France by mark-capture-recapture, assessing population movements and deriving conservation measure - seasonal road closures

### Metapopulation Dynamics and Iterated Dispersal in Water Voles

2010 - 3 months

Graduate Research Project - Xavier LAMBIN

University of Aberdeen, Scotland

- Characterisation of Highland water vole dispersal network within and among metapopulations using kinship analyses and network sciences

### Sex-biased Dispersal During Range Advance

2010 - 6 weeks

Graduate Research Project - Justin TRAVIS

University of Aberdeen, Scotland

- Modelling the erosion of sex-biased dispersal at the advancing range edge for an invasive species - theoretical modelling, Australian Cane Toads used as case study

### Acid Rains and Prairie Diversity in France

2009 - 3 months

Undergraduate Thesis - Didier ALARD, Emmanuel CORCKET

University of Bordeaux 1, France

- Impacts of nitrogen atmospheric pollution on acid prairie biodiversity (S-W of France) in term of soil seed bank composition and germination, growth and survival rates

## PUBLICATIONS

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Armsworth P., Benefield A., Dilkina B., Fovargue R., Jackson H., **Le Bouille D.** and Nolte C. (2019) *Allocating resources for land protection using continuous optimization: biodiversity conservation in the United States* Ecological Applications

### MANUSCRIPTS IN REVIEW

1. **Le Bouille D.**, Armsworth P. and Fargione J. (2019) *Spatio-temporal variation in the costs of managing protected areas*. Biological Conservation
2. Pinnschmidt A., Hoogstra M., Fovargue R., **Le Bouille D.**, Fisher M., Harris J., Armsworth P. (2020) *Protecting land leads to increased philanthropic giving to conservation*. Ecological Economics

### MANUSCRIPTS IN PREPARATION

1. **Le Bouille D.**, Armsworth P. (2020) *Largest dataset of actual, spatially explicit and parcel-level costs for protected area acquisition in the U.S.* Journal of Applied Ecology
2. **Le Bouille D.**, Armsworth P. (2020) *The price of buying land for conservation in the U.S.: accurate acquisition cost prediction for optimal reserve planning*. Conservation letters
3. **Le Bouille D.**, Armsworth P. (2020) *Predicting bargain sale occurrence and size in land transactions for conservation*. Biological Conservation

### BOOK CHAPTER

Lambin X., **Le Bouille D.**, Oliver M.K., Sutherland C., Tedesco E. and Douglas A. (2012) *High connectivity despite high fragmentation: iterated dispersal in a vertebrate metapopulation*. In: Dispersal Ecology and Evolution (chap. 32) Clobert et al. Editors, Oxford University Press.

## AWARDS AND FELLOWSHIPS

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|  |                 |
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| 2019 - NIMBioS Graduate Awards - Competitive, Project-Based Award                    | \$2,500         |
| 2015 to 2019 - UT Competitive Yearly Research Awards and Project-based Travel Grants | \$5,000         |
| 2015 to 2019 - Chancellor Funds - Based on Application and Research Proposal Merit   | \$25,000        |
| 2017 to 2018 - NIMBioS Graduate Research Assistant Fellowship                        | \$50,000        |
| 2012 - Six-Month Scholarship for MSc Research Project and Thesis                     | Equiv. \$3,300  |
| 2010 to 2012 - French Governmental Grant - Merit Based, Gov. Sponsorship for MSc     | Equiv. \$10,000 |
| 2009 to 2010 - Erasmus Waivers and Scholarship to Study Abroad - U. of Aberdeen      | Equiv. \$31,500 |

## CONFERENCES AND PRESENTATIONS

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- ESA 2019 - Le Bouille D., Armsworth P. and Fargione J., What drives the cost of U.S. conservation?
- NACCB 2018 - Le Bouille D., Armsworth P. and Fargione J., Accurate acquisition cost prediction for optimal reserve planning
- ESA 2016 - Le Bouille D. and Armsworth P., The real cost of acquiring lands for conservation
- NACCB 2016 - Le Bouille D. and Armsworth P., Investigating the dynamic patterns of management costs in protected areas
- ESA 2015 - Le Bouille D., Armsworth P. and Iacona G., The time path of investments for the management of protected areas

## TEACHING AND MENTORING EXPERIENCE

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### TEACHING ASSISTANT - UTK

Mathematical Models in Biology - EEB/MATH 406

GIS and Niche Modeling - EEB/GEO 550

Research Ethics - PHILO/EEB 504

Organismal and Ecological Biology, *Hons.* - BIO 158

Cell Biology - BIO 140

### EXTRA TRAINING - WORKSHOPS

Science Communication and Policy - ESA (Spring 2020)

Associate Level of CIRTl certification (Summer 2017)

ORI Research Ethics Certification (Spring 2017)

Best Practice in STEM Teaching (Fall 2016)

### OTHER APPOINTMENTS

#### IT Assistant - UTK

Departmental Computer Maintenance

#### Workshop Facilitation - NIMBioS

NIMBioS International Working Groups

#### Mentoring

Undergraduate Mentoring Program

Women in STEM Mentoring Group

## OUTREACH

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### EKEE - University of Tennessee

2015-2019 - Graduate Outreach Committee

Head of Tabling Events

Outreach activities in zoos, farmers' market, fairs

### KidsU - University of Tennessee

Summer 2019 - Learning Summer Camp

Class Design, Teaching, Field Trips - Age 9-12

### UT's Darwin Day - University of Tennessee

2018 - Science Communication Event

Advertisement and material creation

Design of activities, Open seminars organizer

### Naturalist Organization Timarcha - UPMC, Paris

2011-2012 Graduate Organization, UPMC

Board Member, Event Leader

PROFESSIONAL ACTIVITIES AND SERVICES 

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|--------------------------------|--|
| <b>Manuscript Review</b>       | for Conservation Letters   |
| <b>Departmental Services</b>   | Departmental Senator - UTK Graduate Student Senate   |
| <b>Professional Membership</b> | Ecological Society of America (ESA), Society for Conservation Biology (SCB),<br>French Society for Ecology and Evolution (SFE <sup>2</sup> ) |

LANGUAGES 

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|                          |                         |                                       |
|--------------------------|-------------------------|---------------------------------------|
| <b>English</b><br>Fluent | <b>French</b><br>Native | <b>Spanish</b><br>Working Proficiency |
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