

## EDUCATION

- 2014 – 2019 **Duke University**  
**PhD** Ecology  
**Dissertation:** *Forecasted Afrotropical community responses to climate change diverge from Neotropical predictions with consequences for biodiversity conservation and carbon storage*  
**Supervisors:** Drs JS Clark and JR Poulsen
- 2009 – 2013 **University of California, Davis**  
**AB** Evolutionary Anthropology, *summa cum laude*  
**AB** Psychology, *cum laude*  
**Thesis:** *A Bayesian joint model of growth and survival for assessing the consequences of differential maternal investment in *Macaca mulatta**  
**Supervisors:** Drs K Hinde and LA Isbell

## PROFESSIONAL POSITIONS

- 2020 → **Postdoctoral Research Scientist**  
Konstanz, Germany  
Laikipia, Kenya  
Gamboa, Panama  
Max Planck Institute of Animal Behavior  
Department for the Ecology of Animal Societies  
Landscape-Scale Dispersal Ecology
- 2020 → **Affiliated Research Scientist**  
Konstanz, Germany  
Centre for the Advanced Study of Collective Behaviour  
University of Konstanz
- 2019 – 2020 **Postdoctoral Research Scientist**  
Leipzig, Germany  
German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig  
Department for the study of Macroecology and Society  
Community Responses to Landscape Diversity and Change
- 2014 – 2019 **Graduate Research Fellow**  
North Carolina, USA  
Duke University  
Nicholas School for the Environment  
University Program in Ecology  
Afrotropical Forest Community Responses to Climate Change (NSF GRF-1106401)
- 2013 – 2014 **Field Manager**  
Kakamega, Kenya  
Columbia University in the City of New York  
Department of Ecology, Evolution, and Environmental Biology (E3B)  
Life History and Ecology of *C. mitis stuhlmanni* (NSF BCS-1028471)
- 2011 – 2013 **Staff Research Assistant**  
California, USA  
Harvard University; University of California, Davis  
Maternal Effects on Offspring Outcomes (NSF BCS-0921978)  
Long-term Effects of Chronic Intranasal Oxytocin (NICHD 1R01HD071998-01A1)  
The Neurobiology of Social Bonding (NICHD 5R01HD053555-04)

**PUBLICATIONS**

- 2022  
In Press  
Ecological and social pressures interfere with homeostatic sleep regulation in the wild;  
*JC Loftus, R Harel, Núñez CL, MC Crofoot;*  
**eLife**  
Pre-print filed at BioRxiv: 10.1101/2021.09.26.461870
- 2022  
10.3389/fevo.2021.742626  
Distinct Community-Wide Responses to Forecasted Climate Change in Afrotropical Forests;  
*Núñez CL, Poulsen JR, White LJT, Medjibe V, Clark JS;*  
**Frontiers in Ecology and Evolution**  
Pre-print filed at BioRxiv: 10.1101/823724
- 2021  
10.3389/fevo.2021.789264  
Long distance seed dispersal by forest elephants;  
*Poulsen JR, Beirne C, Rundel C, Baldino M, Kim S, Knorr J, Minich T, Jin L, Núñez CL, Xiao S, Mbamy W, Obiang GN, Masseloux J, Nkoghe T, Ebanega MO, Clark CJ, Fay MJ, Morkel P, Okouyi J, White LJT, Wright JP;*  
**Frontiers Ecology And Evolution**
- 2021  
10.1073/pnas.2106130118  
Is there tree senescence? The fecundity evidence;  
*Qiu T, Aavena Acuna M, Andrus R, Ascoli D, Bergeron Y, Beretti R, Bogdziewicz M, Boivin T, Bonal R, Caignard T, Calama R, Camarero JJ, Clark C, Courbaud B, Delzon S, Donoso Calderon S, Farfan-Rios W, Gehring CA, Gilbert GS, Greenberg CH, Guo Q, Hille Ris Lambers J, Hoshizaki K, Ibanez I, Journé V, Kilner C, Kobe R, Koenig WD, Kunstler G, LaMontagne JM, Ledwon M, Lutz JA, Motta R, Myers JA, Nagel TA, Núñez CL, Pearse IS, Piechnik , Poulson J, Poulton-Kamakura R, Redmond MD, Reid CD, Rodman KC, Scher CL, Van Marle HS, Seget B, Sharma1 S, Silman M, Swenson JJ, Swift M, Uriarte M, Vacchiano G, Veblen TT, Whipple AV, Whitham TG, Wion AP, Wright J, Zhu K, Zimmerman JK, Zywiec M, Clark JS;*  
**Proceedings of the National Academy of Sciences (PNAS)**
- 2021  
10.1038/s41559-021-01486-0  
Ecological factors influence balancing selection on leaf chemical profiles of a wildflower;  
*Carley LN, Mojica JP, Chen C, Lin Y, Prasad KVSK, Chan E, Hsu C, Keith R, Núñez CL, Olson-Manning CF, Rushworth CA, Wagner MR, Wang J, Yeh P, Reichelt M, Ghattas K, Gershenson J, Lee C, Mitchell-Olds T;*  
**Nature Ecology & Evolution**
- 2021  
10.1038/s41467-020-20836-3  
Continent-wide tree fecundity driven by indirect climate effects;  
*Clark JS, Andrus R, Aubry-Kientz M, Bergeron Y, Bogdziewicz M, Bragg DC, Brockway D, Cleavitt NL, Cohen S, Courbaud B, Daley R, Das AJ, Dietze M, Fahey TJ, Fer I, Franklin JF, Gehring CA, Gilbert GS, Greenberg CH, Guo Q, HilleRisLambers J, Ibanez I, Johnstone J, Kilner C, Knops J, Koenig WD, Kunstler G, LaMontagne JM, Legg KL, Luongo J, Lutz JA, Macias D, McIntire EJB, Messaoud Y, Moore CM, Moran E, Myers JA, Myers OB, Núñez CL, Parmenter R, Pearse S, Pearson S, Poulton-Kamakura R, Ready E, Redmond M, Reid CD, Rodman KC, Scher CL, Schlesinger WH, Schwantes AM, Shanahan E, Sharma S, Steele MA, Stephenson NL, Sutton S, Swenson JJ, Swift M, Veblen TT, Whipple AV, Whitham TG, Wion AP, Zhu K, Zlotin R.;*  
**Nature Communications**
- 2021  
10.1111/icad.12470  
Recovery of dung beetle biodiversity and traits in a regenerating rainforest: a case study from Costa Rica's Osa Peninsula;  
*Whitworth A, Beirne C, Flatt E, Froese G, Núñez CL, Forsyth A;*  
**Insect Conservation and Diversity**

- 2020  
10.1111/geb.13150 Old growth Afrotropical forests critical for maintaining forest carbon;  
*Poulsen JR, Medjibe VP, White LJT, Miao Z, Banack-Ngok L, Beirne C, Clark CJ, Cuni-Sanchez A, Doucet JL, Jeffery KL, Lee ME, Lewis SL, Mahli Y, Massard E, Moore S, Núñez CL, Reitsma J, Saatchi S;*  
**Global Ecology and Biogeography**
- 2019  
10.1002/ecs2.2965 Stronger together: comparing and integrating camera trap, visual, and dung survey data for ecological inference in tropical forest mammal communities;  
*Núñez CL, \*Froese G, Beirne C, \*Meier A, Ossman M, \*Dipenthal J, \*McCarthy J, \*Kim S, Poulsen J;*  
**Ecosphere**
- 2019  
10.2981/wlb.00543 Estimation Of Gut Passage Times Of Wild, Free Roaming Forest Elephants;  
*Beirne C, Núñez CL, Baldino M, \*Kim S, Knorr J, Masseloux J, \*Minich T, Poulsen JR, Rundel C, Wright JP, Jin K, Xiao A, Mbamy W, Obiang GN, Nkoghe T;*  
**Wildlife Biology**
- 2019  
10.1002/eap.1987 Landscapelevel validation of allometric relationships for carbon stock estimation reveals bias driven by soil type;  
*Beirne C, Miao Z, Núñez CL, Medjibe VP, Saatchi S, White L.J.T., and Poulsen J.R.;*  
**Ecological Applications**
- 2019  
10.1002/ecm.1381 Food webs built on unreliable foundations: Masting and the movement, demographic storage, and diet breadth of consumers;  
*Clark JS, Núñez CL, Tomasek B;*  
**Ecological Monographs**
- 2018  
10.1093/aobpla/ply074 Low-Intensity Logging and Hunting have Long-Term Effects on Seed Dispersal but not Fecundity in Afrotropical Forests;  
*Núñez CL, Clark JS, Poulsen JR, Clark C;*  
**Annals of Botany, Plants**
- 2018  
10.1111/cobi.13035 Ecological consequences of forest elephant declines for Afrotropical forests;  
*Poulsen JR, Rosin C, Núñez CL, \*Meier A, Mills E, Koerner S, Blanchard E, Callejas J, Moore S, Sowers M.;*  
**Conservation Biology**
- 2015  
10.1002/ajp.22426 Offspring of primiparous mothers do not experience greater mortality or poorer growth: Revisiting the conventional wisdom with archival records of Rhesus Macaques;  
*Núñez CL, Grote MN, Wechsler MS, Allen-Blevins C, and Hinde KJ.;*  
**American Journal of Primatology**

### [Pre - Prints](#)

- 10.1101/823203 Disturbance Sensitivity Shapes Patterns of Tree Species Distribution in Afrotropical Lowland Rainforests More Than Climate or Soil;  
*Núñez CL, Clark JS, Poulsen JR, Clark C;*  
**BioRxiv**

### [Datasets](#)

- 10.5061/dryad.p5hqbkzqf Ecological and social pressures interfere with homeostatic sleep regulation in the wild;  
*Loftus JC, Harel R, Núñez CL, Crofoot MC;*  
**DRYAD**

10.5061/  
dryad.7h44j0zsr

Ecological factors influence balancing selection on leaf chemical profiles of a wildflower;  
*Carley LN, ..., Núñez CL, et al.*;  
**DRYAD**

Accession:  
PRJNA659863  
ID: 659863

Boechera stricta raw sequence reads of CFR;  
*Carley LN, ..., Núñez CL, et al.*;  
**NCBI**

Accession:  
PRJNA609209  
ID: 609209

Boechera stricta long-read genome assembly;  
*Carley LN, ..., Núñez CL, et al.*;  
**NCBI**

\* *Indicates advised or mentored students*  
*Indicates equal contribution*

### SELECTED CONTRIBUTED TALKS AND ABSTRACTS

2020  
Virtual Presentation  
Published Abstract

*Clark JS, Andrus R, Aubry-Kientz M, Bergeron Y, Bogdziewicz M, Bragg DC, Brockway D, Cleavitt NL, Cohen S, Courbaud B, Daley R, Das AJ, Dietze M, Fahey TJ, Fer I, Franklin JF, Gehring CA, Gilbert GS, Greenberg CH, Guo Q, HilleRisLambers J, Ibanez I, Johnstone J, Kilner C, Knops J, Koenig WD, Kunstler G, LaMontagne JM, Legg KL, Luongo J, Lutz JA, Macias D, McIntire EJB, Messaoud Y, Moore CM, Moran E, Myers JA, Myers OB, Núñez CL, Parmenter R, Pearse S, Pearson S, Poulton-Kamakura R, Ready E, Redmond M, Reid CD, Rodman KC, Scher CL, Schlesinger WH, Schwantes AM, Shanahan E, Sharma S, Steele MA, Stephenson NL, Sutton S, Swenson JJ, Swift M, Veblen TT, Whipple AV, Whitham TG, Wion AP, Zhu K, Zlotin R.*;  
Interactions that control the pace of forest change in North America;  
105th Annual Meeting of the Ecological Society of America

2020  
Virtual Presentation  
Published Abstract

*Swenson JJ, Qui T, Schwantes AM, Kilner C, Núñez CL, Scher CL, Sharma S, Clark JS*;  
Community Reorganization Response to Climate Change: Species Interactions, State-Space Modeling and Food Webs;  
International Geoscience and Remote Sensing Symposium

2018  
Podium  
Published Abstract

*Núñez CL, Poulsen JR, Clark CJ, and Clark JS*  
Effects of Hunting and Logging on Tree Fecundity and Seed Dispersal in Afrotropical Forests  
103rd Annual Meeting of the Ecological Society of America

2018  
Podium  
Published Abstract

*Clark JS, Núñez CL, and Tomasek BJ*  
Spatio-temporal forecasting pulsed-resource masting and its implications for wildlife  
103rd Annual Meeting of the Ecological Society of America

2018  
Podium  
Published Abstract

*Tomasek BJ, Porté AJ, He F, Zimmermann NE, Núñez CL, Domec JC, and Clark JS*  
Trait generality in two temperate forest regions: Do community weighted trait responses to environment translate between continents?  
103rd Annual Meeting of the Ecological Society of America

2017 Podium Published Abstract Clark JS, Dunn R, Becheleot B, Gelfand A, Kays R, Núñez CL, Schliep E, Taylor D, Tomasek B  
Sensitivity and Velocity of Community Reorganization Across NEON: Plants to Insects to Mammals Responding Jointly to Climate Change  
102nd Annual Meeting of the Ecological Society of America

## SELECTED COMMUNITY OUTREACH AND ACADEMIC SERVICE

### Community Outreach

2021 STEAM center expansion proposal  
Kidzone Museum

2020 Rhine Clean-Up  
CASACB

2019 Graduate Panel on Mentorship  
Duke University Biology

2018 Environmental Law Panel on Climate Policy  
Duke Conservation Society

2018 Discussion Forum with Bronwyn Llewellyn, USAID Environment Officer  
Duke Conservation Society

2018 Discussion Forum with Greg Andeck of Audubon  
Duke Conservation Society

2017 Oosting Endowed Event on Ecological Implications of Disease  
Duke University Program in Ecology

2016 Discussion Forum with Andy Read from Vaquitas  
Duke University Program in Ecology

2016 Virunga and panel discussion  
Duke Conservation Society

2016 Discussion Forum with Elizabeth Kalies of The Nature Conservancy  
Duke Conservation Society

2016 Ask a scientist exhibit  
NC. Central Regional Science and Engineering Fair

2015 Social Innovation in Conservation  
Duke Conservation Society

### Academic Service

2021 **Elected Representative**  
Max Planck Society  
Max Planck Institute of Animal Behavior

2021 **Organizer**  
Open Data Science Series  
Max Planck Institute of Animal Behavior

2014 - 19 **PhD Chair**  
University Program in Ecology Executive Council  
Duke University

2015 - 19 **PhD Chair**  
Duke Conservation Society  
Duke University

2017 - 18 **Recruitment Chair**  
University Program in Ecology  
Duke University

2017 - 18 **Co-Director**  
Ecological Perspectives on Disease and Health  
University Program in Ecology / Triangle Center for Evolutionary Medicine  
Duke University

2017 - 18 **Henry J. Oosting Endowed Lecture PhD Chair**  
University Program in Ecology  
Duke University

2016 - 17 **Elected Representative**  
Graduate and Professional Student Council  
University Program in Ecology  
Duke University

## SELECTED AWARDS, FELLOWSHIPS, AND GRANTS

2021 M21-38; €47 270	<b>CASCB Medium Money Grant</b> 'Collective Responses to Forecasted Landscape-Scale Resource Variation' <i>as PI</i>
2021 S21-12; €3 800	<b>CASCB Small Project Grant</b> 'FIELD: Facilitating Inclusion, Equity, and Latitudinal Diversity' <i>as Co-PI with T. Montgomery and E. Strauss</i>
2017 - 19 \$ 50 000	<b>Bass Connections in Energy and Environment</b> 'Mega-Gardeners of Tropical Forest: Modelling Seed Dispersal by Forest Elephants' <i>as collaborator with J. Poulsen, A. Gelfand, J. Wright, et al.</i>
2017 - 19 WW-190ER-17; \$ 4 839	<b>Early Career Grant</b> National Geographic Society <i>as collaborator with A. Meier, J. Okouyi, and S. Bourgeois</i>
2014 - 18 \$ 77 000 + overhead	<b>Neil Williams Presidential Fellowship</b> Duke University <i>as PI</i>
2014 - 19 NSF GRF-1106401; \$ 96 000 + overhead	<b>Graduate Research Fellowship</b> National Science Foundation <i>as PI</i>

## TEACHING AND MENTORING

### Teaching

ENV 710	<b>Applied Data Analysis for Environmental Science</b>
BIO 362	<b>Primate Evolutionary Ecology</b>
ANT 50	<b>Life History Evolution</b>

### Formal Mentoring

2017-19 HS	<b>J. Miklaucic</b>
2017-19 MEM	<b>A. Xiao</b>
2017-19 MEM	<b>K. Jin</b>
2017-19 MEM	<b>M. Baldino</b>
2017-19 MEM	<b>J. Knorr</b>
2016-19 MEM	<b>T. Minich</b>
2016-18 MEM	<b>M. Ossman</b>
2016-18 MEM	<b>J. Dipenthal</b>
2016-18 MEM	<b>J. McCarthy</b>

### Thesis Supervision

2021 → PhD	<b>C. Monteza</b> University of California Davis
2021 → MS	<b>V. Karaj</b> University of Konstanz
2021 → BS	<b>N. Stockmayer</b> University of Konstanz