

# Chase L. Nuñez

Max Planck Institute of Animal Behavior  
Department for the Ecology of Animal Societies  
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## EDUCATION:

- 2014 - 19     **Duke University**  
**Ph.D.** Ecology  
**Dissertation:** *Forecasted Afrotropical forest responses to climate change diverge from Neotropical predictions with consequences for biodiversity conservation and carbon storage*  
**Supervisors:** Drs. J. S. Clark & J. R. Poulsen
- 2009 - 13     **University of California, Davis**  
**A.B.** Evolutionary Anthropology, *summa cum laude*  
**A.B.** 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 & L. A. Isbell

## PROFESSIONAL POSITIONS:

- 2020 -         **Postdoctoral Researcher**  
Dr. M. Crofoot, University of Konstanz, Max Planck Institute of Animal Behavior  
Department for the Ecology of Animal Societies  
Social and Environmental Decision-Making of Immigrating *Papio anubis*  
Konstanz, Baden-Württemberg, Germany
- 2019 - 20     **Postdoctoral Researcher**  
Drs. J. Chase & C. Meyer, University of Leipzig, iDiv  
Macroecology and Society/Biodiversity Synthesis  
The Joint Response of North American Breeding Birds to Land-Use Heterogeneity  
Leipzig, Saxony, Germany
- 2014 - 19     **Graduate Research Fellow**  
Duke University Nicholas School of the Environment  
University Program in Ecology  
Afrotropical Forest Community Responses to Climate Change (NSF GRF-1106401)  
Durham, North Carolina, USA
- 2013 - 14     **Field Manager**  
Dr. M. Cords, Columbia University  
Life History and Ecology of *C. mitis stuhlmanni* (NSF BCS-1028471)  
Kakamega Forest, Kenya
- 2011 - 13     **Staff Research Assistant**  
Dr. K. Hinde, Harvard University  
Dr. K. Bales, 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)  
Davis, California, USA

## **PUBLICATIONS:**

**Nuñez CL**, Grote MN, Wechsler MS, Allen-Blevins C, and Hinde KJ. *Offspring of Primiparous Mothers Do Not Experience Higher Mortality or Poorer Growth: Revisiting the Conventional Wisdom with Archival Records of Rhesus Macaques (Macaca mulatta)*. American Journal of Primatology. **2015**.

DOI:10.1002/ajp.22426.

Poulsen JR, Rosin C, **Nuñez CL**, \*Meier A, Mills E, Koerner S, Blanchard E, Callejas J, Moore S, Sowers M. *The Ecological Consequences of Forest Elephant Decline for Afrotropical Forests*. Conservation Biology. **2018**.

DOI:10.1111/cobi.13035

**Nuñez CL**, Clark JS, Poulsen JR, Clark C, *Low-Intensity Logging and Hunting have Long-Term Effects on Seed Dispersal but not Fecundity in Afrotropical Forests*. Annals of Botany, Plants. **2018**.

DOI: 10.1093/aobpla/ply074

Clark JS, **Nuñez CL**, Tomasek B, *Food webs built on unreliable foundations: Mast seeding and the movement, demographic storage, and diet breadth of consumers*, Ecological Monographs **2019**.

DOI: 10.1002/ecm.1381

Beirne C, Miao Z, **Nuñez CL**, Medjibe VP, Saatchi S, White L.J.T., and Poulsen J.R.; *Landscape-level validation of allometric relationships used to estimate carbon stock reveals marked spatial heterogeneity in model bias driven by soil type in Afrotropical forests*, Ecological Applications. **2019**.

DOI: 10.1002/eap.1987

Beirne C, **Nuñez 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, *Estimation Of Gut Passage Times Of Wild, Free Roaming Forest Elephants*, Wildlife Biology. **2019**.

DOI: 10.2981/wlb.00543

**Nuñez CL**, \*Froese G, Beirne C, \*Meier A, Ossman M, \*Dipenthal J, \*McCarthy J, \*Kim S, Poulsen J, *Stronger together: comparing and integrating camera trap, visual, and dung survey data for ecological inference in tropical forest mammal communities*, Ecosphere. **2019**.

DOI: 10.1002/ecs2.2965

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, **Nuñez CL**, Reitsma J, Saatchi S, *Old growth Afrotropical forests critical for maintaining forest carbon*. **2020**.

DOI:10.1111/geb.13150

### Pre-Prints

**Nuñez CL**, Clark JS, Poulsen JR, Clark C, *Disturbance Sensitivity Shapes Patterns of Tree Species Distribution in Afrotropical Lowland Rainforests More Than Climate or Soil*, BioRxiv Preprint. **2019**.

DOI: 10.1101/823203

**Nuñez CL**, Clark JS, Poulsen JR, Clark C, *Afrotropical Tree Communities May Have Distinct Responses to Forecasted Climate Change*, BioRxiv Preprint. **2019**.

DOI: 10.1101/823724

\* Indicates mentored students  
† Indicates joint-first authorship

## **AWARDS, FELLOWSHIPS & GRANTS:**

- 2019 Marie Skłodowska-Curie Actions Seal of Excellence
- 2017 - 19 Mega-Gardeners of Tropical Forest: Modelling Seed Dispersal by Forest Elephants  
Bass Connections in Energy and Environment  
Awarded to J. Poulsen, in collaboration with A. Gelfand, J. Wright, et al.  
(\$50,000)
- 2017 - 19 Early Career Award  
National Geographic Society  
Awarded to A. Meier, in collaboration with J. Okouyi, and S. Bourgeois  
(WW-190ER-17; \$4,839)
- 2014 - 19 Graduate Research Fellowship  
National Science Foundation  
(NSF GRF-1106401; \$96,000 + overhead)
- 2014 - 18 Neil Williams Presidential Fellowship  
Duke University  
(\$77,000 + overhead)
- 2013 Departmental Citations for Excellence, UC Davis
- 2013 Departmental Honors, UC Davis
- 2012, 13 Center for Student Involvement Grant, UC Davis
- 2012 Nominated to Phi Kappa Phi Honors Society
- 2010 Undergraduate Scholarship Award, UC Davis
- 2010 Academic Competiveness Grant, UC Davis
- 2009 International Order of Odd Fellows Scholarship
- 2009 Masonic Masters and Brethren Scholarship
- 2009 Phil Bocks Community Service Scholarship
- 2009 Northstar at Tahoe Environmental Stewardship Scholarship
- 2009 Tahoe Mountain Resorts Scholarship

## **SELECTED CONTRIBUTED TALKS AND ABSTRACTS:**

- 2020 Clark JS, [...], **Nuñez CL**, [1 of 54 co-authors], Interactions that control the pace of forest change in North America, *105<sup>th</sup> Annual Meeting of the Ecological Society of America*, Virtual. August [Virtual Presentation, Published Abstract]
- 2020 Swenson JJ, Qui T, Schwantes AM, Kilner C, **Nuñez 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 2020*, Virtual. September/October [Virtual Presentation, Published Abstract]
- 2019 **Nuñez CL**; Forecasted Afrotropical forest responses to climate change diverge from Neotropical predictions with consequences for biodiversity conservation and carbon storage, *Duke University Program in Ecology Seminar Series 2019*, Durham, NC. April [Podium]
- 2018 **Nuñez CL**, Poulsen JR, Clark CJ, and Clark JS; Effects of Hunting and Logging on Tree Fecundity and Seed Dispersal in Afrotropical Forests, *103<sup>rd</sup> Annual Meeting of the Ecological Society of America*, New Orleans, LA. August [Podium, Published Abstract]
- 2018 Clark JS, **Nuñez CL**, and Tomasek BJ; Spatio-temporal forecasting pulsed-resource masting and its implications for wildlife, *103<sup>rd</sup> Annual Meeting of the Ecological Society of America*, New Orleans, LA. August [Podium, Published Abstract]
- 2018 Tomasek BJ, Porté AJ, He F, Zimmermann NE, **Nuñez CL**, Domec JC, and Clark JS; Trait generality in two temperate forest regions: Do community weighted trait responses to environment

translate between continents?, *103<sup>rd</sup> Annual Meeting of the Ecological Society of America*, New Orleans, LA. August [Podium, Published Abstract]

- 2017 Clark JS, Dunn R, Becheleot B, Gelfand A, Kays R, **Nunez 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, *102<sup>nd</sup> Annual Meeting of the Ecological Society of America*, Portland, OR. August [Podium, Published Abstract]
- 2015 **Nunez CL**. Offspring of Primiparous Mothers Do Not Experience Higher Mortality or Poorer Growth: Revisiting the Conventional Wisdom with Archival Records of Rhesus Macaques (*Macaca mulatta*), *84<sup>th</sup> Annual Meeting of the American Association of Physical Anthropologists*, St. Louis, MO. March [Poster, Published Abstract]
- 2014 **Nunez CL**, Grote MN, Wechsler MS, and Hinde KJ. Sex and Birth Order Predict Juvenile Growth and Survival in Captive Rhesus Macaques (*Macaca mulatta*), *37<sup>th</sup> Meeting of the American Society of Primatologists* Decatur, GA. September [Podium, Published Abstract]

## **TEACHING AND MENTORING**

### Teaching

ENV. 710: *Applied Data Analysis for Environmental Science*. Required master's level statistics course. Weekly lecture and R coding labs. *Duke University*

ANT. 50: *Life History Evolution*. Required undergraduate course. Guest Lecture and weekly office hours. *University of California, Davis*

### Mentoring

- 2018 - 19 J. Miklaucic, *NC School of Science and Math Internship Program* [high School Student]
- 2017 - 19 A. Xiao, *Bass Connections Seed Dispersal Group* [undergraduate student]
- 2017 - 19 K. Jin, *Bass Connections Seed Dispersal Group* [undergraduate student]
- 2017 - 19 M. Baldino, *Bass Connections Seed Dispersal Group* [undergraduate student]
- 2017 - 19 J. Knorr, *Bass Connections Seed Dispersal Group* [undergraduate student]
- 2016 - 19 T. Minich, *NASA Adv. Information Systems Technology Program* [masters student]
- 2016 - 19 C. Kilner, *NASA Adv. Information Systems Technology Program* [PhD student]
- 2016 - 19 L. Scher, *NASA Adv. Information Systems Technology Program* [PhD student]
- 2016 - 18 M. Ossman, *Community Wildlife Working Group* [masters student]
- 2016 - 18 J. Dipenthal, *Elephant Working Group* [masters student]
- 2016 - 17 J. McCarthy, *Community Wildlife Working Group* [masters student]

### Selected Community Outreach

- 2018 Panel on Mentorship, 02/13/2019
- 2018 Environmental Law Panel on Climate Policy, 07/02/2018
- 2018 Discussion Forum with Ms. Bronwyn Llewellyn, USAID Environment Officer, 05/03/2018
- 2018 Discussion Forum with Mr. Greg Andeck of Audubon, 22/03/2018
- 2017 Community Lemur Centre Tour, 19/09/2017
- 2017 Oosting Endowed Event on Ecological Implications of Disease, 12/04/2017
- 2016 Discussion Forum with Dr. Andy Read from Vaquitas, 10/11/2016
- 2016 Virunga and panel discussion, 25/10/16
- 2016 Discussion Forum with Elizabeth Kalies of The Nature Conservancy, 20/10/2016
- 2016 NC. Central Regional Science and Engineering Fair – Ask a scientist table, 07/10/2016
- 2016 Nicholas School Earth Day, 22/04/2016

- 2016 *Volunteer Day at the Ellerbe Creek Watershed Association, 20/02/2016*  
 2015 *Triangle Conservation Career Trek On, 04/11/2015*  
 2015 *International Landscapes & Conservation, 14/10/2015*  
 2015 *Social Innovation in Conservation, 02/10/2015*  
 2015 *Sustainable Ecotourism Lecture with Kurt Holle of Rainforest Expeditions, 21/09/2015*

## **ACADEMIC SERVICE**

- 2014 - 19 PhD Chair  
 University Program in Ecology Executive Council  
 Duke University
- 2015 - 19 PhD Chair  
 Duke Conservation Society  
 Duke University
- 2017 - 18 Ecology PhD Recruitment Chair  
 University Program in Ecology  
 Duke University
- 2017 - 18 Co-Director, Ecological Perspectives on Disease and Health Symposium  
 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 University Program in Ecology Elected Representative  
 Graduate and Professional Student Council  
 Duke University
- 2015 Duke Elected Representative  
 National Association of Graduate and Professional Students  
 29<sup>th</sup> Annual National Congress  
 University of Southern California