

DR. DANIEL J NICHOLSON

Community Ecology | Population Dynamics | Tropical Ecology | Zoology
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Professional Positions

MAY 2022 - CURRENT

POSTDOCTORAL RESEARCH ASSOCIATE

University of Texas Arlington

Role: Managing NSF funded project in the Caribbean, focused on community ecology.

Advisors: Dr. Luke Frishkoff & Dr. Luke Mahler (University of Toronto)

JUNE 2021 - DECEMBER 2021

VISITING POSTDOCTORAL FELLOW

Smithsonian Tropical Research Institute

Role: Continuing elements of my PhD, expanding to include mate choice & diet analysis.

Advisors: Dr. Michael Logan, Dr. Owen McMillan & Dr. Christian Cox

Education

SEPTEMBER 2016 - JUNE 2021

PH.D - EVOLUTIONARY ECOLOGY

Queen Mary University London, Zoological Society of London, and the Smithsonian Tropical Research Institute

Thesis Title: Colonisation, Phenotypic Change, & Survival:

Anole Introductions in Panama

Advisors: Dr. Robert Knell, Dr. Trenton Garner & Dr. Michael Logan

SEP 2012 - OCT 2013

MASTERS OF RESEARCH - BIODIVERSITY AND CONSERVATION

The University of Leeds

Advisors: Dr. Alison Dunn & Dr. Christopher Hassall

SEP 2009 - JUN 2012

B.SC. (HONS) ZOOLOGY

The University of Derby

Advisors: Dr. Mark Bulling

Grants & Awards

SMITHSONIAN TROPICAL RESEARCH INSTITUTE BRIDGE FUND 2021 - \$2,500

SMITHSONIAN TROPICAL RESEARCH INSTITUTE TRAVEL FUND 2018 - \$800

SMITHSONIAN PRE-DOCTORAL FELLOWSHIP 2018 - \$20,000

NATIONAL ENVIRONMENTAL RESEARCH COUNCIL (NERC) PHD FUNDING 2016 - £100,000

Publications

14: Gripshover, N.D. Meik, J.M. **Nicholson, D.J.** and Cox, C.L. 2024. Feeding behavior varies based upon prey defences in the ground snake (Squamata: Serpentes: *Sonora episcopa*). *Journal of Zoology*, jzo.13198. [Link](#)

13: Rosso, A.A. Logan, M.L. Casement, B. Chung, A.K. Curlis, J.D. Folfas, E. Gallegos, M. Neel, L.K. **Nicholson, D.J.** Williams, C.E. McMillan, W.O & Cox, C.L. 2024. Plasticity of Gene Expression and Thermal Tolerance: Implications for Climate Change Vulnerability in a Tropical Forest Lizard. *Ecological and Evolutionary Physiology*. 97(2), 82-96. [Link](#)

12: **Nicholson, D.J.** Knell, R.J. Folfas, E. Neel, L.K. Degon, Z. *et al.* 2023. Island colonisation leads to rapid behavioural and morphological divergence in *Anolis* lizards. *Evolutionary Ecology*, 37,799-795. [Link](#)

- 11:** Pirani, R.M. Arias, C.F. Charles, K. Chung, A.K. Curlis, J.D. **Nicholson, D.J.** Vargas, M. Cox, C.L. McMillan, W.O. and Logan, M.L. 2023. A high-quality genome for the slender anole (*Anolis apletophallus*): an emerging model for field studies of tropical ecology and evolution. *G3, Genes, Genomes, Genetics*, 14(1), jkad248. [Link](#)
- 10:** Williams, C.E. Kueneman, J. **Nicholson, D.J.** *et al.* 2022. Sustained drought, but not short-term warming, alters the gut microbiome of wild *Anolis* lizards. *Applied and Environmental Microbiology*, e00530-22. [Link](#)
- 9:** **Nicholson, D.J.** *et al.* 2022. Climate anomalies and competition reduce establishment success during biological invasion. *Ecology and Evolution*, 12(10), e9402. [Link](#)
- 8:** Cox, C.L. Logan, M.L. **Nicholson, D.J.** *et al.* 2022. Species-specific expression of growth-regulatory genes in two anoles with divergent patterns of sexual size dimorphism. *Integrative Organismal Biology*, 4(1), e025. [Link](#)
- 7:** Logan, M.L. Neel, L.K. **Nicholson, D.J.** *et al.* 2021. Sex-specific microhabitat use is associated with sex-biased thermal physiology in *Anolis* lizards. *Journal of Experimental Biology*. 224, jeb236597. [Link](#)
- 6:** Neel, L.K. Logan, M.L. **Nicholson, D.J.** *et al.* 2021. Habitat structure mediates vulnerability to climate change through its effects on thermoregulatory behaviour. *Biotropica*. 53(4), 1-13. [Link](#)
- 5:** Rosso, A.A*. **Nicholson, D.J.*** Logan, M.L. Chung, A.K. Curlis, J.D. Degon, Z.D. Knell, R.J. Garner, T. McMillan, W.O. Cox, C.L. 2020. Sex-biased parasitism and expression of a sexual signal in a tropical rainforest system. *Biological Journal of the Linnaean Society*. 131, 785-800. * joint first authors. [Link](#)
- 4:** Cox, C.L., Alexander, S. Casement, B. Chung, A.K. Curlis, J.D. Degon, Z. Dubois, M. Falvey, C. Graham, Z. Folfas, E. Gallego, M, Neel, L.K. **Nicholson, D.J.** Perez, D.J.P. Ortiz-Ross, X. Rosso, A.A. Taylor, Q. Thurman, T.J. Williams, C. McMillan, W.O. and Logan, M.L. (2020) Ectoparasite extinction in simplified lizard assemblages during experimental island invasion. *Biology Letters*. 16(8), 20200474. [Link](#)
- 3:** **Nicholson, D.J.*** Kanagavel, A*. Baron, J. Durand, S. Murray, C. and Tapley, B. 2020. Culture and it's role in garnering support for species conservation: the case of the mountain chicken frog (*Leptodactylus fallax*) in Dominica. *Amphibian and Reptile Conservation*. 14(2), 133-144. *joint first authors. [Link](#)
- 2:** **Nicholson, D.J.** *et al.* 2017. Development of in-country live food production for amphibian conservation: the mountain chicken frog (*Leptodactylus fallax*; Muller, 1926) in Dominica, West Indies. *Amphibian and Reptile Conservation*. 11(2), 59-68. [Link](#)
- 1:** **Nicholson, D.J.** Hassall, C. and Frazier, J.A. 2015. Comparison of a native and non-native reptile species. *Journal of Tropical Ecology*. 31: 563-566. [Link](#)

Manuscripts In Preparation

Lange, Z.K. Bodensteiner, B.L. **Nicholson, D.J.** Lertzman-Lepofsky, G. Murray, A.H. Folfas, E. Domínguez- Guerrero, S. Mahler, D.L. Muñoz, M.M. and Frishkoff, L.O. 2025. Lizard thermal physiology drives abundance peaks along environmental gradients, but only weakly predicts distributional limits. *The American Naturalist* – Accepted.

Nicholson, D.J. Lertzman-Lepofsky, G. Lange, Z.K. Folfas, E. Murray, A.H. Mahler, D.L. and Frishkoff, L.O. 202X. Limits and liberations: drivers of, and divergence in, habitat use within *Anolis* ecomorphs. *In Prep*. February Submission predicted.

Conference Presentations

- 21: Nicholson, D.J.** Lertzman – Lepofsky, G. Lange, Z.K. and Frishkoff, L.O. Limits and liberations: drivers of, and divergence in, habitat use within *Anolis* ecomorphs. *University of Texas Postdoctoral Conference*, UT San Antonio, Texas, September 2024.
- 20: Logan, M.L., Alujevic, K.L. Bakewell, L.A. Chung, A.K. Curlis, J.D. Fontaine, S. Nicholson, D.J.** Pirani, R. Rosso, A.A. Williams, C.E. Wuthrich, K.L. McMillan, W.O and Cox, C.L. Rapid change in a rainforest anole: results from the first six years of a translocation experiment. *Society of Integrative & Comparative Biology Annual Meeting*, Seattle, Washington, January 2024.
- 19: Alujevic, K.L. Alfonso, C. Bakewell, L.A. Curlis, J.D. Fontaine, S. Keller, J. Lopez Tacoaman, Y. Nicholson, D.J.** Pirani, R. Ponce, N. Ratia, N. Rosso, A. Vivas, A. Williams, C.E. Wuthrich, K.L. McMillan, W.O. Cox, C.L. and Logan, M.L. Shifts in the thermal sensitivity or resting metabolic rate in transplanted *Anolis* lizards. *Society of Integrative & Comparative Biology Annual Meeting*, Seattle, Washington, January 2024.
- 18: Lange, Z.K. Bodensteiner, B.L. Nicholson, D.J.** Lertzman-Lepofsky, G. Murray, A.H. Folfas, E. Domínguez- Guerrero, S. Mahler, D.L. Muñoz, M.M. and Frishkoff, L.O. Lizard thermal physiology drives abundance peaks along environmental gradients, but only weakly predicts distributional limits. *Society of Integrative & Comparative Biology Annual Meeting*, Seattle, Washington, January 2024.
- 17: Nicholson, D.J.** Lertzman – Lepofsky, G. Lange, Z.K. and Frishkoff, L.O. Climate alone cannot explain variation in habitat use among communities of Anoles, in the Caribbean. *British Ecological Society Symposium*, Belfast, UK, December 2023.
- 16: Nicholson, D.J.** Knell, R.J. McCrea, R. McMillan, W.O. Neel, L. K. Chung, A.K. Curlis, J.D. Garner, T.W.J. Cox, C.L and Logan, M.L. Rare climate events and competition constrain establishment success in *Anolis* lizards. *Society of Integrative and Comparative Biology Annual Meeting*, Phoenix, Arizona, January 2022.
- 15: Nicholson, D. J.** Knell, R.J. McCrea, R. Neel, L. K. Curlis, J. D. Williams, C. E. Chung, A. K. McMillan, W. O. Garner, T. W. J. Cox, C.L and Logan, M.L. Climate anomalies and competition reduce establishment success during biological invasion. *Evolution*, Cleveland, Ohio, June 2022.
- 14: Cox, C.L., Logan, M.L. Nicholson, D.J.** Chung, A.K. Rosso, A.A. McMillan, W.O and Cox, C.L. Species specific expression of growth-regulatory genes in *Anolis* congeners with divergent patterns of sexual size dimorphism. *Society of Integrative and Comparative Biology Annual Meeting*, Phoenix, Arizona, January 2022.
- 13: Nicholson, D. J.** Logan, M.L. Cox, C.L. McMillan, W.O. Gardner, T.W.J and Knell, R.J. Behavioural shifts lead to rapid morphological change in novel environments. *University of London Joint Doctoral Training Program Conference*, Remote, UK, September 2020.
- 12: Nicholson, D. J.** Logan, M.L. Cox, C.L. McMillan, W.O. Gardner, T.W.J and Knell, R.J. Population dynamics and morphological change after experimental colonization of a novel environment. *Society of Integrative and Comparative Biology Annual Meeting*, Austin, Texas, January 2020.
- 11: Cox, C.L. Rosso, A.A. Nicholson, D.J.** McMillan, W.O and Logan. Sex-biased parasitism and the expression of a sexual signal in a tropical forest lizard. *Society of Integrative and Comparative Biology Annual Meeting*, Austin, Texas, January 2020.
- 10: Nicholson, D. J.** Logan, M.L. Cox, C.L. McMillan, W.O. Gardner, T.W.J and Knell, R.J. Population dynamics and morphological change after experimental colonization of a novel environment. *British Ecological Society Symposium*, Belfast, UK, December 2019.

- 9: Nicholson D.J.** Logan, M.L. Cox, C.L. Chung, A.K. Degon, Z.D. Dubois, M.M. Neel, L.K. Curlis, J.D. McMillan, W.O. Garner, T.W.J and Knell, R.J. Natural selection on morphology in a tropical lizard after a rapid shift in habitat structure. *Society of Integrative and Comparative Biology Annual Meeting*, Tampa, Florida, January 2019.
- 8: Nicholson, D. J.** Logan, M.L. Cox, C.L. McMillan, W.O. Gardner, T.W.J and Knell, R.J. Natural selection on Morphology in a Tropical Lizard after a Rapid Shift in Habitat Structure. *University of London Joint Doctoral Training Program Conference*, London, UK, September 2019.
- 7:** Degon, Z.D. **Nicholson, D.J.** Chung, A.K. Taylor, Q. Curlis, J.D. Neel, L.K. Dubois, M.M. Logan, M.L. McMillan, W.O and Cox, C.L. Sex-specific relationships between energetics and ectoparasites in a tropical lizard. *Society of Integrative and Comparative Biology Annual Meeting*, Tampa, Florida, January 2019.
- 6:** Rosso, A.A. **Nicholson, D.J.** Chung, A.K. Curlis, J.D. Knell, R.J. Garner, T.W.J. Logan, M.L. McMillan, W.O and Cox, C.L. Ectoparasites and the expression of sexual signals in a tropical lizard. *Society of Integrative and Comparative Biology Annual Meeting*, Tampa, Florida, January 2019.
- 5: Nicholson, D. J.** Logan, M.L. Cox, C.L. McMillan, W.O. Gardner, T.W.J and Knell, R.J. Evolutionary feedbacks under abrupt environmental change. *University of London Joint Doctoral Training Program Conference*, London, UK, September 2018.
- 4: Nicholson, D.J.** Logan, M.L. Cox, C.L. McMillan, W.O. Gardner, T.W.J and Knell, R.J. The ecological and morphological drivers of ectoparasite load in a tropical ectotherm. *British Ecological Society & European Society for Evolution Meeting*, Ghent, Belgium, 2017.
- 3: Nicholson, D.J.** Sulton, M. Baron, J and Durand, S. Conservation of the Mountain Chicken Frog in Dominica and Montserrat. *University of the West Indies Environmental Symposium*, Roseau, Dominica, March 2016.
- 2: Nicholson, D.J.** Frazier, J.A and Hassall, C. Comparative Life Histories of the Invasive *Hemidactylus frenatus* and the Honduran Endemic *Phyllodactylus palmeus*: Morphology, Activity and Reproduction. *British Ecological Society Poster Symposium*. London, UK, March 2013.
- 1: Nicholson, D.J.** Frazier, J.A. Demare, G and Montgomery, C. Population dynamics and Body Condition of the Hog Island Boa. *British Herpetology Society Conference*, London, UK, May 2012.

Invited Conference Presentations

- 1: Nicholson, D. J.** Knell, R.J. McCrea, R. Neel, L. K. Curlis, J. D. Williams, C. E. Chung, A. K. McMillan, W. O. Garner, T. W. J. Cox, C.L and Logan, M.L. Surviving island life: Island colonisation leads to rapid behavioural and morphological change. *Association of Tropical Biology & Conservation*, Cartagena, Colombia, July 2022.

Invited Seminars

UNIVERSITY OF TEXAS AT ARLINGTON - POSTDOC SEMINAR | 2024

Treasured Islands: The life, death, and ecology of lizards across the Caribbean.

UNIVERSITY OF PUERTO RICO – HERPETOLOGY SEMINAR | 2022

The Anole: a model organism and how they helped change our opinion on evolution.

SMITHSONIAN TROPICAL RESEARCH INSTITUTE – TUPPER TALK | 2019

The adaptive response of a tropical lizard after a rapid shift in habitat structure.

SMITHSONIAN TROPICAL RESEARCH INSTITUTE – BAMBI TALK | 2018

Is Evolution all its cracked up to be? Evolutionary feedbacks and a transplant experiment.

Public Outreach

BERLIN NATURKUNDE MUSEUM – SCIENTIFIC SALON | BERLIN, GERMANY - 2019

Public discussion about the more important elements of environmental biology.

GRANT MUSEUM OF ZOOLOGY – FIELDWORK TALES | LONDON, UK - 2018

Public Talk - Experiences conducting international fieldwork and what it means to be a researcher.

GRANT MUSEUM OF ZOOLOGY – SCIENCE SHOWOFF | LONDON, UK - 2017

Comedy showcase - Boa constrictors of the world.

Teaching Experience

UNIVERSITY OF TEXAS AT ARLINGTON | 2022 – CURRENT

Research Skills and Field Ecology: Practical class, that I designed, based on campus that also includes statistical classes and laboratory work. *Class size = 8.*

QUEEN MARY UNIVERSITY LONDON | 2018 – 2021

Research Skills and Communication: R class based across multiple workshops and drop-in sessions for help with R assignments. *Class size = 35.*

Human Anatomy: Practical anatomy class for multiple workshops. *Class size = 30.*

Foundational Biology: An intro-biology class based on teaching struggling students the core concepts of biology. *Class size = 25.*

Desert Ecology and distance sampling: One-time practical class I gave to fellow PhD students in California about how life survives in the desert and how to conduct distance sampling. It was voted best teaching event of the 10-day workshop. *Class size = 32.*

ROYAL VETERINARY COLLEGE - LONDON | 2021 - 2022

Consultant Examiner: I worked with the RVC and London Zoo as part of their Wildlife Animal Health Masters program to grade and provide feedback for essay assignments.

BRITISH EXPLORING SOCIETY - PERU | 2015

Developed and informal lecture series/class schedule focused on: Habitat fragmentation, amphibian ecology, snake identification, bird ecology, and general conservation. Classes included practical and discussion elements. Based in Manu National Park – Peru. *Class size = 15.*

BRITISH EXPLORING SOCIETY - NAMIBIA | 2014

Developed and informal lecture series/class schedule focused on: Desert ecology, reptile ecology, snake identification, mammal ecology, camera trapping, distance sampling techniques, and general conservation. Classes included practical and discussion elements. Based in Erongo – Namibia. *Class size = 15.*

Supervision/Advisor Experience

UNDERGRADUATE THESIS STUDENTS | 2012 - 2024

Alex Beese: University of Derby – Iguana conservation – 2012.

Jacqueline Baird: University of Glasgow – Boa constrictor ecology – 2012.

Charlie Davidson: University of Southampton – Boa constrictor habitat use – 2013.

Thomas Howells: University of South Wales – Boa constrictor behaviour – 2013.

Lucy Brown: University of Southampton – Iguana conservation – 2013.

Hanna Sundahl: University of Oxford – Iguana behaviour – 2013.

Stephanie Bacon: Plymouth University – Boa constrictor morphology – 2013.

Lillian Durand: University of Texas Arlington – Anole head morphology – 2024.

STUDENT INDEPENDENT RESEARCH PROJECTS | 2019 - 2024

Edita Folfas: University of Toronto - Anole predation response - 2019.

Claire Williams: Northeastern University - Anole gut microbiome - 2019.

MASTERS THESIS STUDENTS | 2019 - 2024

Adam Rosso: Georgia Southern University - Anole plasticity - 2019.

David Reid: University of the West Indies - Anole competition - Current.

PH.D STUDENTS | 2018 - 2024

John David Curlis: University of Michigan - Anole colouration - 2021.

Noah Gripshover: Florida International University - Anole diet - 2021.

Gavia Lertzman-Lepofsky: University of Toronto - Anole evolution - 2022-2024.

Zachary Lange: University of Texas Arlington - Frog/Anole ecology - 2022-2024.

Edita Folfas: University of Texas Arlington - Reptile thermal ecology - 2022-2024.

Taylor Wright-Poteet: University of Texas Arlington - Anole niches - 2024.

Tristan Herod: University of Texas Arlington - Reptile thermal ecology - 2024.

Paul Fenton: University of Texas Arlington - Invasive anoles - 2024.

Students Mentored

SMITHSONIAN TROPICAL RESEARCH INSTITUTE

Madeline Dubois, Zach Degon, Xochitl Ortiz Ross, Cleo Favley, Dylan Padilla, Bri Casement, Maria Gallegos, Sean Alexander, Quinn Taylor, Daniel Romeo & Cruz Batista.

UNIVERSITY OF TORONTO

Patrick Ouyang, Brenda Lee, Genevieve Kleefisch, Megan Horsthuis, Michael Chiu, Becky Dong, Jared de Silva, Gabi Diez, Emma Zongaro & Christina Bogle.

UNIVERSIDAD AUTONOMA DE SANTO DOMINGO

Bianka Melissa Sano & Gerson Feliz.

UNIVERSITY OF TEXAS AT ARLINGTON

Tyler Irvin, Morgan Page, Hunter West, Alex Yenne, Monica Miles & Honesty Lopez.

UNIVERSITY OF THE WEST INDIES

Nicholas Lee & Noel Ellis.

Relevant Experience

OCT 2015 – JUL 2016

IN-COUNTRY PROJECT MANAGER – DOMINICA

Zoological Society of London

Key Roles:

- Captive husbandry of a critically endangered amphibian (Mountain Chicken Frog).
- Running a captive breeding and research centre.
- Monitoring the remaining wild population and the prevalence of the chytrid fungus.
- Public outreach and researching the effectiveness of outreach.

JUL 2015 – AUG 2015

SCIENCE COORDINATOR – PERU

British Exploring Society

Key Roles:

- Educating & mentoring students during an expedition in the Amazon Rainforest.
- Scientific focus on, habitat fragmentation, distance sampling, herpetology, jungle ecology, primary vs secondary forests, tropical ecology, and parrot behaviour.
- Teaching students about navigation and jungle survival skills.
- Providing logistical support and venomous snake mitigation/emergency plans.

SEP 2014 – DEC 2014

RESEARCH ASSISTANT – CHRISTMAS ISLAND

Australian National University

Key Roles:

- Investigating the threat of invasive species to endangered wildlife on Christmas Island.
- Maintaining a captive breeding population of an endemic reptile species.
- Working alongside Christmas Island National Park Agency.

JUL 2014 – AUG 2014

SCIENCE COORDINATOR – NAMIBIA

British Exploring Society

Key Roles:

- Educating & mentoring students during an expedition in the Namibian Desert.
- Scientific focus on, elephants as ecosystem engineers, distance sampling, herpetology, desert ecology, and camera trapping.
- Helping to lead a weeklong expedition across the Namib Desert to the Skeleton Coast.
- Teaching students about navigation and bushcraft skills.

JAN 2014 – APR 2014

RESEARCH ASSISTANT – THAILAND

National University of Singapore

Key Roles:

- Investigating the effect of forest fragmentation on biodiversity and species abundance.
- Camera trapping to monitor endangered megafauna abundance and diversity.
- Monitoring small mammal populations using mark-recapture techniques.
- Conducting surveys to quantify the herpetofauna of the region.

JUL 2012 – AUG 2014 (SEASONAL)

RESEARCH ASSISTANT/FIELD STATION COORDINATOR – HONDURAS

Operation Wallacea

Key Roles:

- Teaching/supervising undergraduate dissertation students.
- Managing data collection for long-term monitoring projects.
- Running public classes about reptile ecology.
- Collecting data for my Masters thesis on invasive geckos.

Academic Memberships

British Ecological Society, University of Texas Arlington Postdoc Society, Royal Geographical Society, Society for Integrative and Comparative Biology, Association for Tropical Biology and Conservation, and the National Postdoc Association.

Reviewer and Editor Positions

REVIEWER

Nature Scientific Reports, Ecological Monographs, Ichthyology and Herpetology, Journal of Zoology, Amphibia-Reptilia, McGill Undergraduate Research Journal, and the North-Western Journal of Zoology.

EDITOR

Evolution – Evolution English Language Support Program (EELS).

References

Dr Luke Frishkoff

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Dr Christian Cox

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