DR. DANIEL J **NICHOLSON**

Population Ecology | Conservation | Evolutionary Ecology |Animal Behaviour | Zoology
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Professional Positions

SEPTEMBER 2025 – CURRENT
SCIENCE MANAGER – LOS AMIGOS BIOLOGICAL STATION
Conservación Amazónica - ACCA
Role: Managing the Science, logistics, outreach, education and publications.

MAY 2022 – JULY 2025
POSTDOCTORAL RESEARCH ASSOCIATE
University of Texas Arlington
Role: Managing NSF funded project in the Caribbean, focused on how communities vary across different habitats and landscapes.
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
Thesis Title: Co-invasive crustaceans in UK rivers & life history comparison of an invasive and native Honduran gecko species.
Advisors: Dr. Alison Dunn & Dr. Christopher Hassall

SEP 2009 - JUN 2012
B.SC. (HONS) ZOOLOGY
The University of Derby
Thesis Title: Population dynamics and body condition of insular Boa constrictors.
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

16: Pirani, R. Arias, C. Curlis, J.D. **Nicholson, D.J.** Stapley, J, McMillan, W.O. Cox, C.L. and Logan, M.L. 2025. The genetic basis of a colorful signal: The polymorphic dewlap of the slender anole (*Anolis apletophallus*). *Heredity,* 134, 343-351, – Link.

15: 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,* 206(3), E000 – Link.

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

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

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.

DOMINICA BROADCASTING CORP – QUESTION TIME | ROSEAU, DOMINICA - 2016
Public radio broadcast and question time – Mountain Chicken Frog recovery project.

DOMINICA SCHOOLS DISTRICT – OUTREACH CLASSES | DOMINICA – 2015/2016
Focused on educating students about Mountain Chicken Frog Conservation.

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.
Jacqualine 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
- 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
- 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
- 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

- 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

- 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

- 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.

Other Experience

JULY 2022 – CURRENT

FOUNDER AND CEO – OMNIS ASPECTUM MEDIA

- Small freelance media company providing ecolodges with ecological media output.
- Incorporates nature and wildlife photography, drone footage, and soundscapes.
- Also provides ecological education events such as guidebooks and seminars.
- Working with universities and NGOs to provide promotional media.

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.

Service and Support

Social Secretary – Postdoc Society 2023 -2025: University of Texas Arlington.
Presentation Judge - Biology Graduate Student Symposium 2025: UT Arlington.
Poster Judge – Graduate Student Discovery Symposium 2025: UT Arlington.
Session Chair – Behavioural Ecology: British Ecological Society Annual Meeting 2023.

Reviewer and Editor Positions

REVIEWER

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

EDITOR

Reptiles & Amphibians – Section Editor
Evolution – Evolution English Language Support Program (EELS).

Software, Hardware, and Coding Experience

SOFTWARE

ArcGIS, QGIS, Adobe Lightroom, Adobe Photoshop, Canva, Microsoft Office, and LYX.

HARDWARE

Arduino, RaspberryPi, AudioMoth, Canon Cameras, DJI Drones, and Trail Cameras.

CODING LANGUAGES

C++ and R including: Rmarkdown, RMark, tidyverse, emmeans, and lme4.