

# Nicholas A. Huron

Data Scientist • Ecologist

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## Education

- 2022      Ph.D. in Biology  
            Temple University  
            Advisor: Dr. Matthew Helmus
- 2013      B.S. in Biology  
            Pepperdine University  
            Magna Cum Laude

## Professional Experience

- 2022–      *Data Scientist*, Data Analytics, CCS Fundraising
- Request, sanitize/tidy, and validate myriad relational database exports to ensure appropriately scoped data
  - Develop and present bespoke predictive modeling and year-over-year trend analysis reports to identify fundraising opportunity in client databases
  - Convert and expand existing analytics products from excel and associated GUI-based tools to reproducible R ecosystem
  - Propose and deliver professional presentations on data cleaning and maintenance for advancement and fundraising
- 2017–2022 *Graduate Researcher*, Integrative Ecology Lab
- *Dissertation*: “Building frameworks for understanding invasions and extinctions for biodiversity science”
  - Research Assistant: “Predicting establishment and impact of spotted lanternfly on trees across the USA”, United States Department of Agriculture
  - Research Assistant: “An integrative approach to model, predict and control the spotted lanternfly invasion meltdown in Pennsylvania”, Pennsylvania Department of Agriculture
- 2014–2017 *Research Assistant*, Cameron Siler Lab
- Study biodiversity and systematics of Philippine herpetofauna
  - Curate specimens/tissues for research in the Sam Noble Oklahoma Museum of Natural History (SNOMNH)
  - Lead fieldwork and data collection on “Tracking the Emergence of Infectious Disease Among Amphibian Species of Greatest Conservation Need—Amphibian Surveys of Wildlife Management Areas in Oklahoma to Determine Current Distribution, Status, and Health of Native Communities” grant, Oklahoma Department of Wildlife Conservation
- 2015–2016 *Herpetology/Mammalogy Curatorial Assistant*, Sam Noble OK Museum of Natural History
- Update taxonomy and reorganize specimen collections
  - Survey, catch, and process vouchered specimens for herpetology collection deposition
  - Digitize and review specimen records in collection databases (morphology, locality, etc.)

- 2013–2014 *Research Assistant*, Pepperdine University
- Organize and lead annual stream surveys of SMM streams
  - Provide critical feedback on studies prior to journal submission
  - Compile and digitize >20 year old amphibian survey dataset
- 2013–2014 *Administrative Assistant*, Pepperdine University
- Assist the Vice Provost for Research with the Waves of Innovation funding program
  - Final review proposals, presentations, and official documents before submission
  - Interact with high profile University members and coordinate committee meetings
- 2013–2014 *Research Student*, Rodney Honeycutt Lab
- Use molecular genetic lab techniques to analyze population phylogeography
  - Study local populations of *Taricha torosa*
- 2009–2014 *Research Student*, Lee Kats Lab
- Investigate behavioral ecology in Santa Monica Mountains (SMM) streams and the La Selva Research Station rainforest in Costa Rica
  - Conduct regular stream surveys in the SMM for USGS and State Park Services
  - Annual presentation of current research at SCCUR (see below for list)
- 2013–2013 *Restoration Ecologist*, Mountains Restoration Trust (MRT)
- Co-lead invasive crayfish removal project (CRP) at Tapia Park (Malibu Creek)
  - Supervise trapping, characterization, and removal of invasive *Procambarus clarkii*
  - Lead invasion ecology education side project via remote video and in person instruction
  - Manage the CRP dataset and collaborate with local scientists

## Publications

13. **Huron, NA**, Helmus, MR. 2022. Predicting host associations of the invasive spotted lanternfly on trees across the USA. bioRxiv. doi:10.1101/2022.09.12.507604.
12. **Huron, NA**, Hedges, SB, Helmus, MR. 2022. Detecting stabilizing, directional, and disruptive patterns of anthropogenic species loss with general models of nonrandom extinction. bioRxiv. doi:10.1101/2022.09.11.507476.
11. **Huron, NA**, Behm, JE, Helmus, MR. 2022. Paninvasion severity assessment of a U.S. grape pest to disrupt the global wine market. Communications Biology, 5:1–11. doi:10.1038/s42003-022-03580-w.
10. Warren, DL, Matzke, NJ, Cardillo, M, Baumgartner, J, Beaumont, LJ, Turelli, M, Glor, R, **Huron, NA**, Simões, M, Iglesias, TL, Piquet, JC, Dinnage, R. 2021. ENMTools 1.0: an R package for comparative ecological biogeography. Ecography, 44:504–11. doi:10.1111/ecog.05485.
9. Marhanka, EC, Watters, JL, **Huron, NA**, McMillin, SL, Winfrey, CC, Curtis, DJ, Davis, DR, Farkas, JK, Kerby, JL, Siler, CD. 2017. Detection of high prevalence of *Batrachochytrium dendrobatidis* in amphibians from southern Oklahoma, USA. Herpetological Review, 48:70–74. Google Scholar.
8. Siler, CD, Davis, DR, Freitas, ES, **Huron, NA**, Geheber, AD, Watters, JL, Penrod, ML, Papeş, M, Amrein, A, Anwar, A, Cooper, D, Hein, T, Manning, A, Patel, N, Pinaroc, L, Diesmos, AC, Diesmos, ML, Oliveros, CH, Brown, RM. 2016. Description of a new species of Slender Skink of the *Brachymeles bonitae* Complex (Reptilia: Squamata: Scincidae) from the northern Philippines. Zootaxa, 4132:15–29. doi:10.11646/zootaxa.4132.1.2.

7. **Huron, NA**, Realubit, NDC, Cobb, KA, Brown, JC, Bergmann, P, Morinaga, G, Diesmos, AC, Diesmos, ML, Brown, RM, Siler, CD. 2016. Discovery of new island populations of the recently described False Geckos (*Pseudogekko pungkaypinit* and *Pseudogekko ditoy*): Conservation implications for the eastern Philippines. *Herpetological Review*, 47:1–4. [PDF](#).
6. Diesmos, AC, Waters, JL, **Huron, NA**, Davis, DR, Alcalá, AC, Crombie, RI, Afuang, LE, Gee-Das, G, Sison, RV, Sanguila, MB, Penrod, ML, Labonte, MJ, Davey, CS, Leone, EA, Diesmos, ML, Sy, EY, Welton, LJ, Brown, RM, Siler, CS. 2015. Amphibians of the Philippines, part I: checklist of the species. *Proceedings of the California Academy of Sciences*, 62:457–539. [Google Scholar](#).
5. Davis, DR, Sanguila, MB, Brown, JC, Brown, RM, Cobb, KA, Bergmann, P, Morinaga, G, **Huron, NA**, Watters, JL, Siler, CD. 2015. Natural History Notes: *Pseudogekko ditoy* (Leyte Diminutive False Gecko) Morphology. *Herpetological Review*, 46:634.
4. Heitz, BB, Ellsworth, ED, **Huron, NA**, Geheber, AD, Siler, CD. 2015. Geographic Distribution: *Sonora semiannulata* (Variable Groundsnake). *Herpetological Review*, 46:577.
3. Sanguila, MB, Realubit, NDC, Diesmos, ML, Lorenzo II, A, De Layola, A, Brown, JC, Cobb, KA, Bergmann, P, Morinaga, G, Freitas, ES, **Huron, NA**, Watters, JL. 2015. Geographic Distribution: *Pelophryne lighti* (Mindanao Flathead Toad). *Herpetological Review*, 46:380.
2. Realubit, NDC, Diesmos, ML, Lorenzo II, A, De Layola, A, Diesmos, AC, Brown, JC, Brown, RM, Cobb, KA, Bergmann, P, Morinaga, G, Siler, CD, **Huron, NA**, Siler, JM. 2015. Geographic Distribution: *Draco Mindanensis* (Mindanao Flying Lizard). *Herpetological Review*, 46:216.
1. Davis, DR, Watters, JL, Köhler, G, Whitsett, C, **Huron, NA**, Brown, RM, Diesmos, AC, Siler, CD. 2015. Redescription of the rare Philippine slender gecko *Pseudogekko brevipes* (Reptilia: Squamata: Gekkonidae) and description of a new species. *Zootaxa*, 4020:357–374. [doi:10.11646/zootaxa.4020.2.7](https://doi.org/10.11646/zootaxa.4020.2.7).

## Research Grants

2019 (\$76,890.00)	<i>United States Department of Agriculture</i> : Predicting establishment and impact of spotted lanternfly on trees across the USA (Co-written with/submitted by M. Helmus)
2018 (\$300.00)	<i>American Society of Ichthyologists and Herpetologists</i> : Stoye Award (Conservation)
2018 (\$225.00)	<i>Temple University Biology Graduate Student Society</i> : Travel Award
2017 (\$150.00)	<i>University of Oklahoma Graduate Student Senate</i> : Research Grant
2015 (\$562.50)	<i>University of Oklahoma Graduate Student Senate</i> : Research Grant
2015 (\$200.00)	<i>Society for the Study of Amphibians and Reptiles</i> : Henri C. Seibert Award (Ecology)
2015 (\$475.00)	<i>University of Oklahoma Department of Biology</i> : L. G. Hill Zoology Excellence Fund

## Honors, Awards, and Fellowships

2017–2022	Temple University Fellowship
2013	Selection for Who's Who in American Universities and Colleges
2012–2013	Blanche E. Seaver Faculty Scholarship
2011–2013	Pepperdine University Natural Science Award
2011–2012	Pepperdine University Seaver College Faculty/Staff Scholarship
2010	Seaver College Dean's List (2 Semesters)
2010	Phi Eta Sigma Honor Society Induction

## Presentations

2023	Apra International (Indianapolis, IN U.S.A.)
2020	Ecological Society of America Annual Meeting, Virtual Meeting (U.S.A.)
2018	Joint Meetings of Ichthyologists and Herpetologists, University of Rochester (Rochester, NY U.S.A.)
2018	Mid-Atlantic Ecological Society of America Conference, Rutgers University - Newark Campus (Newark, NJ U.S.A.)
2015	Society for the Study of Amphibians and Reptiles Meeting, University of Kansas (Lawrence, KS U.S.A.)
2013	Southern California Conference of Undergraduate Research (SCCUR), Whittier College (Whittier, CA U.S.A.)
2012	SCCUR, California State University Channel Islands (Camarillo, CA U.S.A.)
2011	SCCUR, Mt. San Antonio College (Walnut, CA U.S.A.)
2010	SCCUR, Pepperdine University (Malibu, CA U.S.A.)

## Teaching Experience

2019	<i>Principles of Ecology</i> , Temple University (TA, 1 semester)
2018–2020	<i>Introduction to Organismal Biology</i> , Temple University (TA, 2 semesters)
2016	<i>Introductory Biology: Molecules, Cells, and Physiology</i> , University of Oklahoma (TA, 1 semester)
2016	<i>Field Herpetology</i> , University of Oklahoma (TA, 2 week summer course)
2015	<i>Human Physiology</i> , University of Oklahoma (TA, 1 semester)
2014	<i>Introductory Zoology</i> , University of Oklahoma (TA, 1 semester)
2012	<i>Introduction to Ecology</i> , Pepperdine University (Undergraduate TA, 1 semester)
2011–2012	<i>Keck Research Seminar</i> , Pepperdine University (Student Mentor, 2 semesters)
2010–2013	<i>Cellular Biology</i> , Pepperdine University (Undergraduate TA, 4 semesters)
2010–2011	<i>General Chemistry</i> , Pepperdine University (Tutor, 2 semesters)

## Skills

### Computer

- R statistics program (data visualization; function, script, and package dev.; R Markdown report writing)
- Git and Github version control and integration
- Bash command line
- SQL
- Python
- Geographic Information Systems software (ArcGIS and qGIS)
- Ecological Niche Modeling (e.g., Maxent, ensemble methods)
- Zotero citation management
- Adobe creative suite (Intermediate: acrobat, illustrator, indesign, and photoshop)

### Professional

- Development and delivery of professional analytics reports and dashboards
- Project tracking with [Monday.com](https://monday.com)
- Management of undergraduate students
- Writing and critical peer-review of scientific literature

### Lab and Fieldwork

- Amphibian/reptile field collection (destructive/non-destructive tissue sampling, specimen preparation, *Batrachochytrium dendrobatidis*/ranavirus swabbing, eDNA collection)
- Ecological survey techniques (e.g., Stream Health Biotic Index)

- Amphibian/reptile care and husbandry
- Lab safety and general genetic sequencing (tissue extraction, PCR, gel electrophoresis)

### *Language*

- Proficient in conversational German
- Limited experience with conversational Tagalog

## **Professional Memberships**

2018	Ecological Society of America
2015	Society for the Study of Amphibians and Reptiles (SSAR)
2015	The Herpetologists' League (HL)
2013	American Society of Ichthyologists and Herpetologists (ASIH)

## **Mentorship**

### ***Temple University, Undergraduate***

2021–2022	Hajra Sohail
2020–2021	Rabbika Rafiu
2017–2019	Alexa Gordon
2017–2018	Thomas Thompson

## **Outreach and Service**

2021–2023	The Raleigh School <ul style="list-style-type: none"> <li>• Assist education and care of preschool students, especially for 'nature days'</li> <li>• Write articles as member of Community Matters Newsletter Committee</li> <li>• Participate in regular school workdays</li> </ul>
2014–2017	Sam Noble Oklahoma Museum of Natural History <ul style="list-style-type: none"> <li>• Assist coordination of Department of Herpetology annual public events</li> <li>• Mentor undergraduate research volunteers in the Department of Herpetology</li> <li>• Identify collected specimens and interface with public during annual Oklahoma Bioblitz</li> </ul>
2011–	Sigma Phi Epsilon national social fraternity (alumnus) <ul style="list-style-type: none"> <li>• Member of the California Psi chapter</li> <li>• Vice President of Recruitment (2012 calendar year)</li> <li>• Semesterly trips to build homes in Tecate, Mexico (Club Dust)</li> <li>• Annual philanthropy to benefit YouthAIDS</li> </ul>
2009–2013	Pepperdine University GreenTeam <ul style="list-style-type: none"> <li>• Member and volunteer</li> <li>• Helped initiate "Trayless Tuesday" to increase campus-wide environmental awareness</li> </ul>

**\*References available upon request.\***