

Devon DeRaad, Ph.D.

La Kretz Postdoctoral Fellow

University of California, Los Angeles

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Education

Ph.D. in Ecology & Evolutionary Biology with honors, University of Kansas	2024
Bachelor of Arts in Biology, Cum Laude, Occidental College	2017

Professional Experience

Assistant Curator of Ornithology at the American Museum of Natural History	2026-present
La Kretz Postdoctoral Fellow: University of California, Los Angeles (UCLA)	2024-2026
Doctoral Student, Teaching and Research assistant: University of Kansas	2018-2024
Postbaccalaureate Researcher: Moore Laboratory of Zoology, Occidental College	2018
Undergraduate Researcher: Occidental College	2015-2017

Peer-Reviewed Publications

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33. Woodman N, **DeRaad DA**, Colella JP, Wiens BJ, P Muñoz, RM Timm (2026). Morphological differentiation without genetic divergence in the Florida Least Shrew, *Cryptotis floridanus*. *Journal of Mammalogy*. gyag040.
 32. BR Ramirez, **DeRaad DA**, Muhlheim AE, Latas P, Durham B, Buxton N, Mutchler MJ, Kirsch EJ, Tsai WLE, Pizarro AK, & McCormack JE (2026). Unlocking the Past to Protect the Future: Forensic DNA and Historical Specimens Reveal the Origins of Smuggled Yellow-Headed Parrots. *Evolutionary Applications*. 19 (6), e70282.
 31. Files AN, **DeRaad DA**, Wiens BJ, Ostrow EN, DeCicco LH, & Moyle RG (2026). From Pleistocene islands to the Mid-Sierra Filter Zone: Phylogeography and hybridization in a Philippine-endemic avian genus (*Sterrhoptilus*). *Ornithology*. ukag024.
 30. **DeRaad DA**, DeCicco LH, Ostrow EN, Chan KO, Hosner PA, and Moyle RG (2025). Rapid divergence with gene flow creates intractable nodes in the tree of life: An empirical demonstration in the Buzzing Flowerpecker (*Dicaeum hypoleucum*). *Evolutionary Journal of the Linnean Society*, kzaf021.
 29. Edwards SV, Fang B, Khost D, Kolyfetis GE, Cheek RG, **DeRaad DA**, Chen N, Fitzpatrick JW, McCormack JE, Funk WC, Ghalambor CK, Garrison E, Guarracino A, Li H, & Sackton TB (2025). Comparative population pangenomes reveal unexpected complexity and fitness effects of structural variants. *Science*, 390 (6778), eadw1931.
 28. Kroodsma DE, **DeRaad DA**, Byers BE, Winslow DE, and Barker FK (2025). Genetic analysis of Marsh Wrens across a broad transition zone in southern Saskatchewan reveals deep divergence and little hybridization between two cultural phenotypes. *Ornithology*, ukaf056.
 27. **DeRaad DA**, Alderson JD, Geiman CO, DeCicco LH, Moyle RG, Spellman GM, & Aguillon SM (2025). Strong selection maintains a narrow, stable tension zone between grosbeak species in the Great Plains. *Evolution*, 79 (11), 2563-2574.
 26. Gompert Z, **DeRaad DA**, & Buerkle CA (2024). A next generation of hierarchical Bayesian analyses of hybrid zones enables direct quantification of variation in introgression in R. *Ecology and Evolution*, 14(11), e70548.

25. DeCicco LH, **DeRaad DA**, Holland P, Pikacha D, Gumo Tigulu I, Tako R, Boseto D, Sweet PR, & Moyle RG (2024). Phylogeography of the Island Leaf Warbler (Aves: *Phylloscopus poliocephalus*) in northern Melanesia reveals rapid secondary sympatry or ecological speciation on Kolombangara Island, Solomon Islands. *Bulletin of the Society of Systematic Biologists*, 3(2), 1-14.
24. **DeRaad DA**, Files AN, DeCicco LH, Martin RP, McCullough JM, Holland P, Pikacha D, Tigulu IG, Boseto D, Lavery TH, Andersen MJ, & Moyle RG (2024). Genomic patterns in the dwarf kingfishers of northern Melanesia reveal a mechanistic framework explaining the paradox of the great speciators. *Evolution Letters*, 8(6), 813-827.
23. Baca SM, Gustafson GT, **DeRaad DA**, Alexander A, Hime PM, & Short AE (2024). A shallow-scale phylogenomics approach reveals repeated patterns of diversification among sympatric lineages of cryptic Neotropical aquatic beetles (Coleoptera: Noteridae). *Systematic Entomology*, 50, 82–101.
22. Lavery TH, **DeRaad DA**, Holland PS, Olson KV, DeCicco LH, Seddon JM, Leung LK, & Moyle RG (2024). Parallel evolution in an island archipelago revealed by genomic sequencing of *Hipposideros* leaf-nosed bats. *Evolution*, 78(6), 1183-1192.
 - Media coverage in [AAAS EurekAlert!](#), [Newsweek](#), and [Evolution Digest](#).
21. **DeRaad DA**, Cobos ME, Hofmeister NR, DeCicco LH, Venkatraman MX, Nishiumi I, McKay B, Zou FS, Kawakami K, Kim CH, Lin RS, Yao CT, Garrett KL, Aguillon SM, McCormack JE, Mays Jr. HL, Peterson AT, Moyle RG, & Shultz AJ (2024). On the brink of explosion? Identifying the source and potential spread of introduced *Zosterops* white-eyes in North America. *Biological Invasions*, 26(5), 1615-1639.
 - Media coverage in [LAist](#).
20. Ramirez BR, Freeland RJ, Muhlheim A, Zellmer AJ, **DeRaad DA**, Kirsch EJ, Mutchler MJ, Secor MB, Reckling KR, Schedl ME, Durham B, Tsai WLE, Terrill RS, Sannapareddy S, Sivakumar AH, Garrett KL, & McCormack JE (2024). Convergent niche shifts of endangered parrots (genus *Amazona*) during successful establishment in urban southern California. *Diversity and Distributions*, 30(4), 1-15.
 - Media coverage in [the LA Times](#) and [Daily Mail](#).
19. **DeRaad DA**, Escalona M, Benham PM, Marimuthu MP, Sahasrabudhe RM, Nguyen O, Chumchim N, Beraut E, Fairbairn CW, Seligmann W, Bowie RC, Cicero C, McCormack JE, & Wayne RK (2023). De novo assembly of a chromosome-level reference genome for the California Scrub-Jay, *Aphelocoma californica*. *Journal of Heredity*, 114(6), 669-680.
18. DeCicco LH, **DeRaad DA**, Ostrow EN, & Moyle RG (2023). A complete species-level phylogeny of the *Erythrura* parrotfinches (Aves: Estrildidae). *Molecular Phylogenetics and Evolution*, 187, 1-10.
17. **DeRaad DA**, McCullough JM, DeCicco LH, Hime PM, Joseph L, Andersen MJ, & Moyle RG (2023). Mitonuclear discordance results from incomplete lineage sorting, with no detectable evidence for gene flow, in a rapid radiation of *Todiramphus* kingfishers. *Molecular Ecology*, 32(17), 4844-4862.
 - [Molecular Ecology cover article](#)
16. Benham PM, Cicero C, **DeRaad DA**, McCormack JE, Wayne RK, Escalona M, Beraut E, Marimuthu MP, Nguyen O, Nachman MW, & Bowie RC (2023). A highly contiguous reference genome for the Steller's jay (*Cyanocitta stelleri*). *Journal of Heredity*, 114(5), 549-560.

15. McCormack JE, Hill MM, **DeRaad DA**, Kirsch EJ, Reckling KR, Mutchler MJ, Ramirez BR, Campbell RM, Salter JF, Pizarro AK, Tsai WLE, & Bonaccorso E (2023). An elevational shift facilitated the Mesoamerican diversification of Azure-hooded Jays (*Cyanolyca cucullata*) during the Great American Biotic Interchange. *Ecology and Evolution*, 13(8), 1-17.
14. McCullough JM, DeCicco LH, Herr MW, Holland P, Pikacha D, Lavery TH, Olson KV, **DeRaad DA**, Tigulu IG, Mapel XM, Klicka LB, Famoo R, Hobete J, Runi L, Rusa G, Tippet A, Boseto D, Brown RM, Moyle RG, & Andersen MJ (2023). A Survey of Terrestrial Vertebrates of Tetepare Island, Solomon Islands, Including Six New Island Records. *Pacific Science*, 76(4), 411-435.
13. Pizarro AK, **DeRaad DA**, & McCormack JE (2023). Temporal stability of the hybrid zone between *Calocitta* magpie-jays revealed through comparison of museum specimens and iNaturalist photos. *Ecology and Evolution*, 13(3), 1-7.
12. **DeRaad DA**, Applewhite EE, Tsai WLE, Terrill RS, Kingston SE, Braun MJ, & McCormack JE (2023). Hybrid zone or hybrid lineage: a genomic reevaluation of Sibley's classic species conundrum in *Pipilo* towhees. *Evolution*, 77(3), 852-869.
11. **DeRaad DA**, McCormack JE, Chen NA, Peterson AT, & Moyle RG (2022). Combining species delimitation, species trees, and tests for gene flow clarifies complex speciation in scrub-jays. *Systematic Biology*, 71(6), 1453-1470.
 - Media coverage in [KU Today](#), [The Wildlife Society](#), and [Science Daily](#).
10. **DeRaad DA** (2022). SNPfiltR: an R package for interactive and reproducible SNP filtering. *Molecular Ecology Resources*, 22(6), 2443-2453.
9. **DeRaad DA**, Manthey JD, Ostrow EN, DeCicco LH, Andersen MJ, Hosner PA, Shult HT, Joseph L, Dumbacher JP, & Moyle RG (2022). Population connectivity across a highly fragmented distribution: Phylogeography of the *Chalcophaps* doves. *Molecular Phylogenetics and Evolution*, 166, 1-11.
8. **DeRaad DA**, Cobos ME, Alkishe A, Ashraf U, Ahadji-Dabla KM, Nuñez-Penichet C, & Peterson AT (2021). Genome-environment association methods comparison supports omnigenic adaptation to ecological niche in malaria vector mosquitoes. *Molecular Ecology*, 30(23), 6468-6485.
7. Nuñez-Penichet C, Osorio-Olvera L, Gonzalez VH, Cobos ME, Jiménez L, **DeRaad DA**, Alkishe A, Contreras-Díaz RG, Nava-Bolaños A, Utsumi K, Ashraf U, Adeboje A, Peterson AT, & Soberon J (2021). Geographic potential of the world's largest hornet, *Vespa mandarinia* Smith (Hymenoptera: Vespidae), worldwide and particularly in North America. *PeerJ*, 9, 1-24.
6. Guo TV, Mosah S, McCullough JM, **DeRaad DA**, DeCicco LH, Tigulu IG, Famoo R, Hobete J, Runi L, Rusa G, Tippet A, Boseto D, Brown RM, Moyle RG, & Andersen MJ (2020). Detailed description of the nest, eggs, and juvenile plumage of the Solomons Nightjar (*Eurostopodus nigripennis*). *The Wilson Journal of Ornithology*, 132(4), 1028-1034.
5. DeCicco LH, Benz BW, **DeRaad DA**, Hime PM, & Moyle RG (2020). New Guinea *Erythrura* parrotfinches: one species or two?. *Bulletin of the British Ornithologists' Club*, 140(3), 351-358.
4. **DeRaad DA**, Maley JM, Tsai WLE, & McCormack JE (2019). Phenotypic clines across an unstudied hybrid zone in Woodhouse's Scrub-Jay (*Aphelocoma woodhouseii*). *The Auk: Ornithological Advances*, 136(2), 1-11.

3. Venkatraman MX, **DeRaad DA**, Tsai WLE, Zarza E, Zellmer AJ, Maley JM, & McCormack, JE (2019). Cloudy with a chance of speciation: integrative taxonomy reveals extraordinary divergence within a Mesoamerican cloud forest bird. *Biological Journal of the Linnean Society*, 126(1), 1-15.
2. Sieburth D, **DeRaad DA**, & Maley JM (2018). Evidence of intergradation within the Golden-cheeked Woodpecker. *Western Birds*, 49(4), 285-288.
1. Blanco DC, **DeRaad DA**, & Maley JM (2017). Geographic Variation and Intergradation in the Elegant Quail. *Western Birds*, 48(3), 181-196.

Grants and Awards

I have received **\$608,899** in total competitive funding (salary costs plus direct research funding), including winning competitive research fellowship awards for both the graduate and post-doctoral research.

- National Science Foundation Postdoctoral Research Fellowship in Biology, **\$270,000**
Declined, August 2026
- Pasadena Audubon Society Grant Award, **\$4,658**
March 2026
- Stunt Ranch Reserve Research Awards, **\$4,000**
December 2025
- SSE W.D. Hamilton Award for Outstanding Grad Student Presentation, **finalist**
June 2025
- SSB Mayr Award Symposium, **finalist**
June 2025
- La Kretz Postdoctoral Fellowship, **\$140,974**
August 2024
- KU Open Access Authors Fund, **\$1,802**
May 2024
- American Ornithological Society Travel Award, **\$513**
August 2023
- KU EEB Graduate Student Organization Travel Award, **\$500**
May 2023
- KU Natural History Museum Panorama Research Grant, **\$1,000**
April 2023
- University of Kansas Madison & Lila Self Graduate Fellowship, **\$175,000**
2018-2022
- KU Natural History Museum Panorama Research Grant, **\$1,000**
April 2022
- Society of Systematic Biologists Graduate Student Research Award, **\$2,040**
May 2021
- American Ornithological Society Graduate Student Research Award, **\$2,472**
April 2021
- KU Natural History Museum Dissertation Funding Award, **\$1,000**
April 2021
- KU Natural History Museum Panorama Research Grant, **\$1,000**
April 2021
- NSF Graduate Research Fellowship Program, **honorable mention**
March 2020
- KU Natural History Museum Panorama Research Grant, **\$1,000**
April 2019
- Best presentation by a PhD student, Kansas Ornithological Society, **\$50**
October 2018
- AOS meeting student travel grant, **\$400**
August 2017
- Pasadena Audubon Society Grant Award, **\$1,000**
March 2017
- Society of Systematic Biologists meeting travel grant, **\$400**
January 2017
- AOS Student Membership Award, **\$90**
January 2017
- Occidental Biology Department merit-based research award, **\$1,000**
October 2016

Teaching Experience

Graduate Teaching Assistant, KU Bio 370: Introduction to Biostats	Spring 2024
Graduate Teaching Assistant, KU Bio 370: Introduction to Biostats	Fall 2023
Developed and led SNP filtering workshop at the American Ornithological Society meeting, in London, Ontario	August 2023
Developed and led RADseq analysis hands-on KU graduate seminar course	Fall 2022
REU field instructor for Solomon Islands field course	June 2019

- Resulted in publication #6, led by undergraduate mentee Tina Guo
Undergraduate Teaching Assistant, Occidental Bio 360: Avian Biology

Spring 2017

Presentations

Invited presentations

DeRaad DA, “Hope is the thing with feathers”. Oral presentation, **Early career investigator award plenary – American Ornithological Society annual meeting**, August 2026.

DeRaad DA, “How are new species formed on islands?”. Oral presentation, **Society for the Study of Evolution Hamilton Award Symposium**, June 2025.

DeRaad DA, “How are new species formed on islands?”. Oral presentation, **Society of Systematic Biologists Mayr Award Symposium** (declined), June 2025.

DeRaad DA, “Graduate research at the KU Natural History Museum”. Oral presentation, **KU Natural History Museum members event**, February 2024.

DeRaad DA, “Avian genomics as a bridge between evolution, conservation, and people”. Oral presentation, **UCLA EEB department seminar series**, February 2024.

DeRaad DA, McCormack JE, Chen NA, Peterson AT, and Moyle RG, “Species delimitation, species trees, and tests for gene flow clarify complex speciation in Scrub-Jays”. Oral presentation, **KU EEB graduate recruitment day**. February 2022.

Selected conference presentations

DeRaad DA, “How are new species formed on islands?”. Oral presentation, **American Ornithological Society annual meeting**, August 2025.

DeRaad DA “SNPfiltR: an R package for interactive and reproducible SNP filtering”. Poster presentation, **American Ornithological Society annual meeting**. August 2023.

DeRaad DA, DeCicco LH, Ostrow EN, Chan KO, Hosner PA, & Moyle RG “Resolving the evolutionary origin of *Dicaeum hypoleucum pontifex*”. Oral presentation, **American Ornithological Society annual meeting**. August 2023.

DeRaad DA. “SNPfiltR: an R package for interactive and reproducible SNP filtering”. Poster presentation, **Society for the Study of Evolution annual meeting**. June 2023.

DeRaad DA, DeCicco LH, Ostrow EN, Chan KO, Hosner PA, & Moyle RG “The tangled evolutionary history of *Dicaeum hypoleucum*”. Oral presentation, **Society for the Study of Evolution annual meeting**. June 2023.

DeRaad DA, Peterson AT, and Moyle RG, “Genomic species delimitation of the Scrub-Jays”. Oral presentation **Society for the Study of Evolution annual meeting**, virtual program. June 2021.

DeRaad DA, DeCicco LH, and Moyle RG, “Rapid diversification of the *Todiramphus* Kingfishers”. Oral presentation, **Kansas Ornithological Society annual meeting**, Wichita, KS. October 2019.

DeRaad DA, Schedl ME, Maley JM, Tsai WLE, & McCormack JE, “Reappraising diversity in *Aphelocoma*”. Oral presentation, **Kansas Ornithological Society annual meeting**, Lawrence, KS. October 2018.

DeRaad DA, Maley JM, Tsai WLE, & McCormack JE, “Geographic variation in Woodhouse’s Scrub-Jay”. Poster, **American Ornithological Society annual meeting**, East Lansing, MI. August 2017.

Professional Service

Peer reviewer for manuscripts in leading academic journals including:

- Nature Communications, Molecular Ecology, Bulletin of the Society of Systematic Biologists, Evolution, Biological Journal of the Linnean Society, Molecular Phylogenetics and Evolution, and Ecology and Evolution.

Journal Club organizer – UCLA EEB genetics reading group:

UCLA, September 2025 – June 2026.

La Kretz Center for California Conservation Postdoctoral Research Fellowship search committee member:

UCLA, September 2025 – December 2025.

Journal Club organizer – Biodiversity Institute Molecular Lab reading group:

University of Kansas, September 2022 – May 2024.

Student representative - KU Genomics Center evolutionary genomics faculty search:

University of Kansas, September 2021 – March 2022.

- I reviewed dozens of applications, participated in 15 zoom interviews and four in person interviews with prospective candidates for this tenure track faculty position.

KU Natural History Museum diversity equity inclusion and accessibility task force:

University of Kansas, Fall 2020.

- Participated in a task force designed to improve the climate of the KU Natural History Museum and identify areas that needed improvement for creating a welcoming professional environment. The task force culminated in a climate survey and demographic profile of the KUNHM.

Outreach

Haunted Museum – LA County Museum of Natural History, October 2025

- I prepared a salvaged museum specimen (California Quail hit by a car) in front of a live audience, to demonstrate the process of creating a museum study skin and engage a diverse audience of attendees.

Dino Fest – LA County Museum of Natural History, September 2025

- I used the museum teaching collection to engage members of the local community with avian museum science, in a hands-on manner. I spoke with community members in an informal setting about the relationship between modern day birds and ancient dinosaurs.

Graduate Student Organization Outreach Committee – KU EEB, September 2018 – May 2020.

- I attended monthly organizing meetings and volunteered regularly to support the outreach events put on by the University of Kansas Ecology and Evolutionary Biology (KU EEB) department.

KU Campus BioBlitz – University of Kansas, May 2019

- I organized and hosted the first BioBlitz to take place on KU's campus. I worked with the KU Natural History Museum outreach coordinator, hanging up flyers around Lawrence, and creating iNaturalist and FaceBook pages for the event. I enlisted five other KU Ecology and Evolutionary Biology graduate students to lead guided walks on their given

taxa of expertise. We had families from the local community as well as KU scientists in attendance, logging over 200 observations on our iNaturalist project page.

Girl Scout STEM Expo – University of Kansas, November 2018

- I worked with a fellow graduate student to develop the module ‘Become a Birder’ where local Girl Scouts troops go on a guided nature walk, where they were taught how to use binoculars, identify local species, and record their sightings. We implemented this module at the annual Girl Scout STEM expo in Lawrence, KS. I lead troops on the nature walk, showed how to use binoculars to identify the species we were seeing.

Macabre at the Museum – University of Kansas, October 2018

- Created a Halloween themed display table using ornithology specimens to educate the public about unique and underappreciated groups like ravens, vultures, and butcherbirds. Spoke with visitors about ornithology and natural history throughout the two-hour museum-wide open house.

Museum outreach at KOS Conference 2018 – University of Kansas, October 2018

- Set up a display table featuring specimens highlighting ongoing ornithology research at KU. Spoke with conference attendees about the value of natural history collections in modern systematics research.

Lawrence BugBlitz – University of Kansas, September 2018

- Staffed a table at the bi-annual BugBlitz sponsored by the KU Natural History Museum. Spent the evening helping local community members catch insects in a local park and identify what they had found using guide-books. Promoted the use of iNaturalist among the local community, explaining how it generates valuable occurrence data that is used by researchers at KU and elsewhere.

BioBlitz Volunteer – Occidental College, April 2018

- I co-led the campus bird survey and teach students and local community members how to use iNaturalist.

BioBlitz Student Leader – Occidental College, Spring 2016, Spring 2017

- Helped organize and execute the inaugural Occidental College BioBlitz in 2016, and again in 2017. I led the campus bird survey both years and taught students and local community members how to use iNaturalist. Participated in semester long class developing the programming modules and organizing logistics each year.

Mentorship

Graduate mentor for KU emerging scholar – University of Kansas, August 2023 – May 2024

- I directly mentored a student participating in the KU Emerging Scholars program, which provides paid research experiences for students from low-income backgrounds during their first two years at KU. Together, we tackled genomic data analysis, learning everything from basic file directory structure to advanced bioinformatics. During this paid research experience the student gained experience working in multiple coding languages, performing data analysis and visualization, and conveying results precisely in scientific writing. This array of technical skills and eventual scientific publication

experience will allow the student to move seamlessly into a top graduate program or directly into a skilled position in the STEM workforce.

RADseq working group – University of Kansas, Fall 2022

- I led a group of five upper-level undergraduates and early graduate students through the process of analyzing a RADseq dataset. I developed an 11-week curriculum with associated tutorials to give them experience working on the command line, on a high-performance computing cluster, and in R. In a single semester, each student started with raw DNA sequence data and progressed to performing their own phylogenetic and population genetic analyses. All materials are available here:

<https://github.com/DevonDeRaad/Fall.2022.RAD.workshop>

Tetepare Research Experience for Undergraduates – University of Kansas, Summer 2019

- **BioBlitz:** From June 11-25 we conducted the first BioBlitz in the Solomon Islands, on Tetepare Island. We logged over 600 unique iNaturalist observations during the survey, including the first iNaturalist records of the endemic Tetepare White-eye (*Zosterops teteparius*). We also recorded daily lists of bird species we observed, which have been archived on the citizen science platform eBird. I worked side by side with undergraduate students and TDA rangers to generate this wealth of high-quality, audio, visual, and checklist data, which altogether represent the most complete survey of the biodiversity of Tetepare Island, to date.
- **Nightjar Survey:** As part of a group of two undergraduate and two graduate students, we worked with local rangers to document some of the first natural history information about the endemic Solomons Nightjar. We conducted nest searches on beaches around the Island of Tetepare, documenting for the first time the juvenile plumage, nesting site, and egg of the Solomons Nightjar.

Western Birds publications – Occidental College, 2016-2017

- As an undergraduate student I worked closely with Moore Lab Collections Manager James Maley to mentor high-school students working in the lab. This resulted in two papers where the high-school student mentee was first author, both of which were published in *Western Birds*.