**Anat M. Belasen, PhD**

National Science Foundation Postdoctoral Research Fellow in Biology

The University of Texas at Austin

Department of Integrative Biology

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**1. APPOINTMENTS**

* **University of Texas at Austin: Postdoctoral Fellow** (Austin, TX) 2021-present
* **Smithsonian Center for Conservation Genomics: Research Affiliate** (Washington, DC) 2019-present
* **Cornell University: Postdoctoral Fellow**

(Ithaca, NY) 2019-2021

**2. EDUCATION**

**University of Michigan Department of Ecology and Evolutionary Biology** (Ann Arbor, MI)

* **Doctor of Philosophy**, Ecology and Evolutionary Biology, August 2019
* Thesis: The impacts of habitat fragmentation on amphibian health in the Brazilian Atlantic Forest biodiversity hotspot
* Dissertation Committee: Dr. Timothy James (chair), Dr. Lacey Knowles, Dr. Meghan Duffy, Dr. Johannes Foufopoulos

**University of Michigan School of Natural Resources and Environment** (Ann Arbor, MI)

* **Master of Science**, Natural Resources and Environment: Conservation Ecology, April 2013
* Thesis: Evaluating potential impacts of climate change on island populations of the Aegean Wall Lizard, *Podarcis erhardii*
* Committee Members: Dr. Johannes Foufopoulos (chair), Dr. Barry Sinervo (UC Santa Cruz)

**Tulane University**

* **Bachelor of Science**, Ecology and Evolutionary Biology, minor specialization in French, August 2008
* Advisor: Dr. Lee Dyer

**3. AWARDS AND FELLOWSHIPS**

* National Science Foundation Postdoctoral Fellowship in Biology, $207,000 (2021-2024)
* David H. Smith Conservation Research Postdoctoral Fellowship, $155,000 (2019-2021)
* Rackham Predoctoral fellowship, $32,640 (2018-2019)
* Susan Lipschutz Award for promoting the success of women in academia, $8,000 (2017)
* Rackham International Research Award, $8,000 (2016)
* Gentry Award for best student oral presentation, Association for Tropical Biology and Conservation (2015)
* Science Communication Fellowship, Detroit Zoo Portal to the Public (2015)

**4. WORK TO FOSTER EQUITY, DIVERSITY, AND INCLUSION IN SCIENCE**

**Cornell University Department of Ecology and Evolutionary Biology**

(Ithaca, NY)

* Working group member, diversity, equity, inclusion, and justice in fieldwork (2020-present)
* Ad-hoc Diversity, Equity, and Inclusion committee member (2020)

**PARC DEITT (Partners in Amphibian and Reptile Conservation – Diversity Equity and Inclusion Task Team)**

* + National Task Team Co-chair (2021-present)
	+ Steering Committee member(2019-2021)
* Inclusive Meeting Practices Team co-chair (2020-2021)
* Scholarship Team member(2019-2021)

**ASIH (American Society of Ichthyologists and Herpetologists)**

* Diversity, Equity, Inclusion, and Belonging Committee(2019-2021)

**FEMMES (Females Exceling More in Math, Engineering, and Science)**

(Southeast Michigan)

* Executive Board: Campus Inclusiveness Coordinator(2018-present), Secretary(2017-2018), PR/Social Media Coordinator (2016-2017)
* STEM Activities Events Volunteer (2013-2016)

**Science Olympiads: Event Coach**

(Ypsilanti, MI) 2013-2019

* High school level: Herpetology (2018-2019)
* Middle school level: Microbe Mission, Anatomy & Physiology (2016-2017); Herpetology (2018)
* Elementary school level: Disease Detectives (2013-2015), Chemistry (2014-2015) Health/Pentathlon (2013-2014)

**5. PUBLICATIONS**

19. Kent, B. A., Holman, C., Amoako, E., Antonietti, A., Azam, J. M., Ballhousen, H., Bediako, Y., **Belasen, A. M.,** Carneiro, C. F. D., Chen, Y.-C., Compeer, E. B., Connor, C. A. C., Cruwell, S., Debat, H., Dorris, E., Ebrahimi, H., Erlich, J. C., Fernandez-Chiappe, F., Fishcer, F., Gazda, M. A., Glatz, T., Grabitz, P., Heise, V., Kent, D. G., Lo, H., McDowell, G., Mehta, D., Neuman, W.-J., Neves, K., Patterson, M., Penfold, N. C., Piper, S. K., Puebla, I., Quashie, P. K., Quezada, C. P., Riley, J. L., Rohmann, J. L., Saladi, S., Schwessinger, B., Siegerink, B., Stehlik, P., Tzilivaki, A., Umbers, K. D. L., Varma, A., Walavalkar, K., de Winde, C. M., Zaza, C., Weissgerber, T. 2022. Recommendations for empowering early career researchers to improve research culture and practice. PLoS Biology, 20(7): e3001680.

18.**Belasen, A. M.**, Russell, I. D., Zamudio, K. R., Bletz, M. C. 2022.  Endemic lineages of Batrachochytrium dendrobatidis are associated with reduced chytridiomycosis-induced mortality in amphibians: evidence from a meta-analysis of experimental infection studies. Frontiers in Veterinary Science, 9: 756686.

17. **Belasen, A. M.,** Amses, K., Clemons, R., Becker, C. G., Toledo, L. F., James, T. Y. 2022. Habitat fragmentation in the Brazilian Atlantic Forest is associated with erosion of frog immunogenetic diversity and increased fungal infections. Immunogenetics, 74: 431-441.

16. Belasen, A. T., **Belasen, A. M.,** Belasen, Ab. R., and Belasen, Ar. R. A Win-Win for Healthcare: Promoting Co-leadership and Increasing Women’s Representation at the Top. Gender in Management: An International Journal. 36(6): 762-781.

15. **Belasen, A. M.,** Riolo, M., Lyra, M., Toledo, L. F., James, T. Y. 2021. Geography, Host Genetics, and Microbial Networks Structure the Skin Microbiome of Fragmented Brazilian Atlantic Forest Frog Populations. Ecology and Evolution, 00: 1-15.

14. Ruthsatz, K., Lyra, M. L., Lambertini, C., **Belasen, A. M.,** Jenkinson, T. S., da Silva Leite, D., Becker, C. G., Haddad, C. F. B., James, T. Y., Zamudio, K. R., Toledo, L. F., Vences, M. 2020. Skin microbiome correlates with bioclimate and *Batrachochytrium dendrobatidis* infection intensity in Brazil’s Atlantic Forest treefrogs. Scientific Reports, 10: 22311.

13. Lambertini, C., Becker, C. G., **Belasen, A. M.,**Valencia-Aguilar, A., de Almeida, C. H. L. N., Betancourt-Roman, C. M., Rodriguez, D., da Silva Leite, D., Oliveira, I. S., Gasparini, J. L. R., Ruggeri, J., Mott, T., Jenkinson, T. S., James, T. Y., Zamudio, K. R., and Toledo, L. F. 2020. Biotic and Abiotic Determinants of *Batrachochytrium dendrobatidis* Infections in Amphibians of the Brazilian Atlantic Forest. Fungal Ecology*,* 49: 100995.

12. Zamudio, K. R., McDonald, C. A., **Belasen, A. M.** 2020. High variability in infection mechanisms and host responses: A review of functional genomic studies of amphibian chytridiomycosis. Herpetologica*.*

11. Zimkus, B. M., Balaz, V., **Belasen, A. M.,**Bell, R. C., Channing, A., Doumbia, J., Gonwouo, L. N., Fokam, E. B., Zassi-Boulou, A.-G., Greenbaum, E., Gvozdik, V., James, T., Hirschfield, M., Jackson, K., Kusamba, C., Larson, J. G., Mavoungou, L.-B., Rodel, M.-O., Penner, J. 2020. Chytrid pathogen (*Batrachochytrium dendrobatidis*) in African amphibians: a continental analysis of occurrences and modeling of its potential distribution. Herpetologica*.*

10. **Belasen, A. M.,** Bletz, M.C., da Silva Leite, D., Toledo, L. F., James, T. Y. 2019. Long-term fragmentation is associated with reduced MHC IIB diversity and increased infections in amphibian hosts. Frontiers in Ecology and Evolution, 6, 1-12.

9. Arellano M.L., Velasco M.A., Martínez Aguirre T., Zarini O., **Belasen A.M.**, James T.Y. & Kacoliris F.P. 2018. Management strategy to avoid chytrid fungus infection in egg clutches of the Valcheta frog *Pleurodema somuncurense*. Conservation Evidence, 15, 38-38.

8. Arellano M.L., Velasco M.A., Martínez Aguirre T., Zarini O., **Belasen A.M.**, James T.Y. & Kacoliris F.P. 2018. Treatment of adult Valcheta frogs *Pleurodema somuncurense* for chytrid fungus. Conservation Evidence, 15, 37-37.

7. **Belasen, A.,** Brock, K., Li, B., Pafilis, P., Valakos, E., Chremou, D., Li, B., Sinervo, B., and Foufopoulos, J. 2016. Fine with heat, problems with water: microclimate alters water loss in a thermally adapted insular lizard. Oikos 126, 447-457.

6. Jenkinson, T.S., Betancourt-Román, C., Lambertini, C., Valencia‐Aguilar, A., Rodriguez, D., Nunes‐de‐Almeida, C.H.L., Ruggeri, J., **Belasen, A.M.,** da Silva Leite, D., Zamudio, K.R. and Longcore, J.E., 2016. Amphibian‐killing chytrid in Brazil comprises both locally endemic and globally expanding populations. Molecular Ecology 25, 2978-2996.

5. James, T. Y. Toledo, L. F, Rödder, D., da Silva Leite, D., **Belasen, A. M.,** Betancourt-Román, C. M., Jenkinson, T. S., Lambertini, C., Longo, A. V., Ruggeri, J., Collins, J. P., Burrowes, P. A., Lips, K. R., Zamudio, K. R., & Longcore, J. E. 2015. Disentangling host, pathogen, and environmental determinants of a recently emerged wildlife disease: lessons from the first 15 years of amphibian chytridiomycosis research. Ecology and Evolution 5, 4079-4097.

4. Li, B., **Belasen, A.**, Pafilis, P., Bednekoff, P., and Foufopoulos, J. 2014. Effects of feral cats on the evolution of antipredator behaviors in island reptiles: insights from an ancient introduction. Proceedings of the Royal Society of London B: Biological Sciences 2014281 20140339.

3. Brock, K., **Belasen, A.,** and Foufopoulos, J. 2014. Voluntary autotomy in *Podarcis erhardii*. Herpetological Review 45, 2, 332.

2. **Belasen, A.,** Burkett, E., Injaian, A., Li, K., Allen, D., and Perfecto, I. 2013. Habitat selection in Blue-spotted Salamanders (*Ambystoma laterale-jeffersonianum* complex*).* Copeia 2013, 2, 254-261.

1. **Belasen, A.,** Li, B., and Foufopoulos, J. 2012. Geographic distribution: *Chalcides ocellatus*. Herpetological Review 43, 102*.*

**6. GRANTS**

* Collaborator on FAPEMIG grant (Minas Gerais [Brazil] State Agency for Research and Development) – Amphibian genetics, diversification, and contact zones in Minas Gerais, PI: Renato C. Nali
* Collaborator on Resilience Institute Bridging Biological Training and Research (RIBBiTR) Pilot & Exploratory Project Grants – (1) "Ancient DNA Sequence Capture," PI: Jack Boyette; (2) “Investigating immunogenetic diversity as a mechanism of host resilience across scales,” PI: Imani Russell
* Mycological Society of America Alexopoulos Mentor Student Travel Grant, $1,000 (2018)
* Barr Bigelow Grant, Department of Ecology and Evolutionary Biology, University of Michigan, $2,275 (2018)
* Block Grant, Department of Ecology and Evolutionary Biology, University of Michigan, $2,287 (2017)
* Okkelberg Grant, Department of Ecology and Evolutionary Biology, University of Michigan, $2,798 (2016)
* Graduate Student Travel Grant, American Society of Ichthyologists and Herpetologists, $600 (2016)
* Rackham Graduate Student Research Grant, $3,000 (2015); $1,500 (2011)
* Wehmeyer Grant, Department of Ecology and Evolutionary Biology, University of Michigan, $1,450 (2014)
* Amphibian Academy Travel Grant, Amphibian Ark, $450 (2013)
* Master’s Thesis Grant, University of Michigan School of Natural Resources, $1,000 (2011)

**7. TEACHING EXPERIENCE**

* **Princeton University, Guest Lecturer** (Princeton, NJ) 2021
	+ **Conservation Biology**, guest lecture and discussion around amphibian evolutionary genetics and health, path to professional career, research philosophy
* **Cornell University, Guest Lecturer** (Ithaca, NY) 2019-2020
	+ **Ecology and Evolution of Infectious Diseases**, focused lecture and activities on emerging wildlife disease
* **University of Michigan, Graduate Student Instructor (GSI)** (Ann Arbor, MI) 2011-2018

 Courses taught:

* + **EEB Senior Capstone:** Winter 2018
	+ **Ecology Lab**: 2013, 2014 Field/Laboratory GSI, 2016, 2017 Writing/Statistics GSI
	+ **Introduction to Biology Lab**: Winter 2012, Winter 2014
	+ **Natural Resource Statistics** (graduate level): Winter 2013
	+ **Biology of Fishes**: Fall 2011, Fall 2012
* **GISE (Girls in Science and Engineering) Camp: Human Genetics Instructor**

 (Ann Arbor, MI) 2016-2019

**8. RESEARCH POSITIONS**

* **University of Michigan Herbarium: Research Assistant**

 (Ann Arbor, MI) Winter 2016

* **University of Michigan Museum of Zoology Herpetology Division: Curatorial Assistant** (Ann Arbor, MI) Fall 2015
* **University of Michigan Museum of Zoology, Fish Division: Research Assistant**

 (Ann Arbor, MI) 2010-2011

* **La Selva Biological Station: Research Assistant**

 (Costa Rica) 2007

* **Tulane University Entomology/Chemical Ecology Lab: Laboratory Assistant**

 (New Orleans, LA) 2006-2008

**9. INVITED SEMINARS AND PANELS**

* University of Texas at San Antonio, San Antonio, TX (2022) – Seminar: Of Frogs and Fungi: Evaluating the drivers of variation in *Batrachochytrium dendrobatidis*infection susceptibility in wild amphibians
* Texas Herpetological Society Annual Fall Symposium – Keynote talk: Amphibians and accomplices: working toward resilient communities of wildlife and researchers
* Global Amphibian and Reptile Disease conference, Knoxville, TN (2022) – Panel: Fostering Safe Workplaces and Diversity in Science
* American Society of Ichthyologists and Herpetologists at Joint Meeting of Ichthyologists and Herpetologists, Spokane, WA (2022) – Panel: Fieldwork strategies for graduate researchers
* American Society of Microbiology ASM Microbe Conference, Washington, DC (2022) – Talk: Friends or foes?: Cross-domain microbial networks in the skin microbiome of a Brazilian Atlantic Forest endemic frog
* James Madison University, Harrisburg, VA (2021, virtual) – Seminar: Friends or foes?: Cross-domain microbial networks in the skin microbiome of a Brazilian Atlantic Forest endemic frog
* Binghamton University, Binghamton, NY (2021, virtual) – Annual Biology Symposium of the Department of the Biological Sciences Keynote: Understanding challenges to amphibian health in fragmented landscapes
* Arkansas State University, Jonesboro, AR (2021, virtual) – Seminar: The genetic basis for disease susceptibility in amphibians
* American Society of Ichthyologists and Herpetologists (2020, virtual) – Panel: Navigating Ichthyology and Herpetology as a member of a marginalized group
* Humboldt State University, Arcata, CA (2020, virtual) – Seminar: Friends or foes?: Cross-domain microbial networks in the skin microbiome of a Brazilian Atlantic Forest endemic frog.
* Cornell University Tropical Biology and Conservation Group, Ithaca, NY (2019) – Seminar: Habitat fragmentation reduces genetic diversity and increases infections in Brazilian Atlantic Forest frogs
* Cornell University Symbiosis Group, Ithaca, NY (2019) – Seminar: Friends and Foes: skin microbiome communities of the Brazilian frog *Thoropa taophora*
* Eastern Michigan University, Ypsilanti, MI (2019) – Seminar: Habitat fragmentation increases amphibian infection susceptibility in the Brazilian Atlantic Forest
* University of Michigan, Ann Arbor, MI (2013) – Welcome panel for first year graduate women in the sciences, mathematics, computer science, and statistics

**10. CONFERENCE PRESENTATIONS**

* Society for Integrative and Comparative Biology, Austin, TX (2023) – **Oral presentation:** Leveraging the Past to Preserve the Future: Using Museomics to Understand Amphibian Disease Responses
* Amphibian Pathogens Annual Meeting
	+ Virtual (2022) – **Keynote oral presentation:** Leveraging the past to preserve the future: Using museomics to assess the genetic basis for amphibian disease susceptibility
	+ Virtual (2021) – **Poster presentation:** Endemic lineages of *Batrachochytrium dendrobatidis* are associated with reduced chytridiomycosis-   induced mortality in amphibians: evidence from a meta-analysis of experimental infection studies
* Joint Meeting of Ichthyologists and Herpetologists
	+ Spokane, WA (2022) – **Oral presentation:** Assessing the threat of *Batrachochytrium dendrobatidis* to ranid frogs of the Western US
	+ Snowbird, UT (2019) – **Oral presentation:** Tropical frogs are more resilient but also sicker than we think
	+ Rochester, NY (2018) – **Oral presentation:** Of Frogs and Microbes: Host genetics and ecological interactions structure amphibian skin microbiome diversity
	+ New Orleans, LA (2016) – **Oral presentation:** How does habitat fragmentation affect disease susceptibility? Examining the relationship between land-use and amphibian resilience in Brazilian forests
	+ Chattanooga, TN (2014) – **Poster presentation:** Investigating the skin mycoflora as a first line of defense against amphibian chytridiomycosis
	+ Albuquerque, NM (2013) – **Oral presentation:** Habitat selection in the Blue-spotted Salamander (*Ambystoma laterale-jeffersonianum* unisexual complex)
* American Genetic Association, Snowbird, UT (2021) – **Virtual speed talk:** Can we use the past to conserve the future?: Evaluating Bd susceptibility over space and time in the Foothill Yellow-legged Frog (*Rana boylii*) in California
* World Congress of Herpetology
	+ Dunedin, Aotearoa New Zealand (2020) – **Oral presentation: (1)** Habitat fragmentation reduces genetic diversity and increases susceptibility to infections in frogs of the Brazilian Atlantic Forest; **(2)** Mitigation strategies for emerging amphibian diseases
	+ Vancouver, BC (2012) – **Oral presentation:** Thermal preference, water loss, and thermal tolerances across island populations of the Aegean Wall Lizard, *Podarcis erhardii*
* International Mycological Congress, San Juan, PR (2018) – **Poster presentation:** Host genetics and ecological interactions structure amphibian skin microbiome diversity
* Partners in Amphibian and Reptile Conservation (PARC)
	+ Cultural Competency & Diversity, Equity, and Inclusion in amphibian and reptile conservation
		- Joint Western PARC meeting (virtual, 2022)
		- Southeast PARC (virtual, 2022)
		- Michigan PARC, Lansing, MI (2019)
	+ Michigan PARC, East Lansing, MI (2018) – **Invited oral presentation:** Mitigating wildlife disease: lessons from Bd
	+ Michigan PARC, Grand Rapids, MI (2012) – **Poster presentation:** Habitat selection in Blue-spotted Salamanders
* Latin American Congress of Herpetology, Quito, Ecuador (2017) – **Oral presentation:** How does long-term habitat fragmentation affect disease susceptibility? Examining the relationships between geography, host genetics, and disease
* Mycological Society of America (MSA)
	+ Berkeley, CA (2016) – **Oral presentation:** Effects of host genetics and immunity on the amphibian skin microbiome
	+ East Lansing, MI (2014) **– Poster presentation:** Investigating the native skin mycoflora as a first line of defense against amphibian chytridiomycosis
* Association of Tropical Biology and Conservation (ATBC), Honolulu, HI (2015) – **Oral presentation:** Examining the interactions of landscape modification and disease
* International Congress on the Zoogeography and Ecology of Greece and Adjacent Regions, Athens, GR (2012) – **Poster presentation:** Physiology and thermal ecology in island populations of the Aegean Wall Lizard, *Podarcis erhardii*
* Ecological Society of America (ESA)
	+ Minneapolis, MN (2013) – **Oral presentation:** Interactions of habitat fragmentation and climate change in Erhard’s Wall Lizard, *Podarcis erhardii*
	+ Portland, OR (2012) – **Poster presentation:** Thermal ecology in island populations of the Aegean Wall Lizard, *Podarcis erhardii*

**11. PROFESSIONAL SOCIETIES**

* American Society of Ichthyologists and Herpetologists
* Society for Conservation Biology (life member)

**12. ADDITIONAL SERVICE**

**Cornell University Department of Ecology and Evolutionary Biology**

(Ithaca, NY)

* Postdoc representative, Department Committee on Research Reactivation (2020-present)
* Working group member, diversity, equity, inclusion, and justice in fieldwork (2020-present)
* Ad-hoc Diversity, Equity, and Inclusion committee member (2020)

**PARC DEITT (Partners in Amphibian and Reptile Conservation – Diversity Equity and Inclusion Task Team)**

* + National Task Team Co-chair (2021-present)
	+ Steering Committee member(2019-2021)
* Inclusive Meeting Practices Team co-chair (2020-2021)
* Scholarship Team member(2019-2021)

**ASIH (American Society of Ichthyologists and Herpetologists)**

* Diversity, Equity, Inclusion, and Belonging Committee(2019-2021)
* Graduate Student Board: Web Content Coordinator(2018-2019)

**FEMMES (Females Exceling More in Math, Engineering, and Science)**

(Southeast Michigan)

* Executive Board: Campus Inclusiveness Coordinator(2018-present), Secretary **(**2017-2018), PR/Social Media Coordinator (2016-2017)
* Volunteer (2013-2016)

**GREEBs (Graduate Researchers in Ecology and Evolutionary Biology)**

(Ann Arbor, MI)

* President (2016-2017)
* Undergraduate Affairs Committee (2015-2016)

**Science Olympiads: Event Coach**

(Ypsilanti, MI) 2013-2019

* High school level: Herpetology (2018-2019)
* Middle school level: Microbe Mission, Anatomy & Physiology (2016-2017); Herpetology (2018)
* Elementary school level: Disease Detectives (2013-2015), Chemistry (2014-2015) Health/Pentathlon (2013-2014)

**Natural Area Preservation: Herpetological Inventory Coordinator**

(Ann Arbor, MI) 2013

* Trained and assisted volunteers collecting data on herpetofauna in Ann Arbor city parks
* Led weekly Citizen Science turtle monitoring canoe expedition with 6th-8th graders

**Herpetological Resource and Management: Intern**

(Chelsea, MI) 2012

* Created guide to Michigan reptiles and amphibians for website
* Managed and databased entries for the Michigan Herp Atlas, a citizen science inventory

**Gulf Restoration Network: Head Field Manager**

(New Orleans, LA) 2009

* Personally raised >$25,000 for organizationthrough door-to-door grassroots campaign
* Trained and supervised teams of 3-5 canvassers each day

**Audubon Zoo Reptile House: Intern**

(New Orleans, LA) 2008-2009

* Maintained, cleaned, and cared for reptiles and amphibians
* Prepared diets, provided health treatments, and contributed to management database

**TEAL (Tulane Environmental Action League): President and Founder**

(New Orleans, LA) 2007-2008

**Best Buddies program: Volunteer**

(New Orleans, LA) 2007-2009

* Served as companion for adults with intellectual disabilities including Down’s Syndrome

**Peer Reviewer**

* Heredity
* Frontiers in Ecology and Evolution
* Austral Ecology
* Conservation Genetics
* Immunogenetics
* Ecological Applications
* Fungal Ecology
* PLOS ONE
* Mycologia
* Herpetological Review
* Canadian Journal of Zoology
* Hydrobiologia