VOLKER H.W. RUDOLF

PROFESSOR OF ECOLOGY & EVOLUTIONARY BIOLOGY

BIOSCIENCES

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RESEARCH INTERESTS

Community & population & evolutionary ecology, focus on temporal, spatial & individual variation; climate change; biodiversity & ecosystem functioning; infectious diseases; cannibalism; freshwater ecology.

APPOINTMENTS

2022-present	Editor-in-Chief, The American Naturalist, University of Chicago Press
2018- present	Professor, BioSciences, Rice University
2019-2020	Graduate Program Director, Ecology & Evolutionary Biology
2016- 2018	Associate Department Chair, BioSciences, Rice University
2014-2016	Graduate Program Director, Ecology & Evolutionary Biology
2007- 2013	Assistant Professor, Rice University, Department of Ecology & Evolutionary Biology

EDUCATION

2003 – 2007:	**PhD** in Ecology & Evolution, University of Virginia, Department of Biology. PhD Advisor: Henry M. Wilbur
2003	**Diplom in Biology** (**MS**), Julius-Maximilians-Universität Würzburg; Theodor-Boveri-Institute of Bioscience, Department of Animal Ecology and Tropical Biology
2000	**Pre-Diplom in Biology (BS)**, University of Regensburg, Department of Biology
1996	**Abitur***: Double major in Biology and Mathematics,* Mathematical - Natural Science Gymnasium Mühldorf

SELECTED HONORS & AWARDS

2025	***Elected as Fellow of the American Association for the Advancement of Science (AAAS)***
2022	***Elected as Editor-in-Chief***, *The American Naturalist*
2022	***Invited Keynote Speaker***, *Unifying Ecology Across Scales,* Gordon Conference
2018	***Invited Keynote Speaker***, First International Congress of Biological Control, Beijing, China
2015	Nominated for ***Blavatnik National Awards for Young Scientist***
2015	***Arnold & Mabel Beckman Foundation*** (Postdoctoral Award for B. Toscano)
2015	***Keynote Speaker***, Oikos (Swedish Ecological Society) Annual Meeting
2014	Nominated for ***Secretary of the American Society of Naturalists***
2014	***Keynote Speaker***, Japanese Ecological Society Symposium
2011	***Robert May Lecture,*** Princeton University
2010	Selected as "***Opponent***" for University of Umea, Department of Biology
2008	***The American Society of Naturalists' Young Investigator Award***. Awarded by the Society to "*recognize outstanding and promising work by young investigators*".
2008	***Andrew Flemming Award***. Awarded by the Department of Biology of the U. Virginia for " *a doctoral dissertation of outstanding quality, originality, and significance*"
2008	***International Collaboration Award***, Rice University
2006	***Faculty Senate Award for Excellence in Research and Teaching***. University of Virginia

FUNDING AWARDS

Pending:

NSF- Biology Integration Institute: Eco-evolutionary response of biodiversity to extreme weather events (Co-PI)

Funded:

2025-2030 **NSF IOS:** *Explaining variation in extreme selfish behavior: Untangling the co-evolutionary relationship of cannibalism, dispersal and kin discrimination*. Sole PI ($1,059436)
2025-2030 **NSF DEB**: *Temporal dimension of indirect effects: Linking the order and spacing of phenologies to indirect interactions in seasonal communities*. Sole PI ($949,431)
2020-2021 **International Collaboration Travel Grant**, Brazil@Rice, Sole PI ($3,400)
2017-2023 **NSF DEB**: *Linking seasonal shifts in the timing of species interactions to the dynamics of temporary pond communities*. Sole PI ($669,750)
2016-2018 **NSF DDIG**: *Scaling within host interactions to epidemic patterns***.** Co-PI: Patrick Clay ($20,102)
2015-2017 **Arnold & Mabel Beckman Foundation** (Postdoctoral Fellow Award for B. Toscano; $115,705)
2013-2018 **NSF DEB**: *Linking ontogenetic niche shifts and functional diversity: Consequences for community dynamics and biodiversity loss***.** Sole PI ($600,000+$6,250 REU)
2013-2014 **NSF DDIG**: *Carry-over effects in space: Beyond single species studies and towards meta-community dynamics*, Co-PI: Benjamin van Allen ($10,435)
2012-2014 **USDA AFRI NIFA** Predoctoral Fellowship: *Elucidating the mechanistic basis and population level consequences of immune priming in Tribolium beetles.* Co-PI with Andrea Grahaem ($75,000)
2012-2013 **NSF DDIG**: *Phenological shifts and species interactions: Disentangling the role of timing and synchrony.* Co-PI: Nicholas Rasmussen ($14,916)
2012 **NSF REU** supplement ($7,500)
2010 -2011 **Shell Center for Sustainability** Grant "*Linking climate change to the structure and functioning of native communities***"** Principal PI, Co-PIs: A. E. Dunham (EEB) & C Massiello (Earth Sciences) ($30,000)
2011 **NSF REU** supplement ($8,625)
2010 **NSF REU** supplement ($19,500)
2009-2011 **National Institute of Mathematical and Biological Sciences** (NIMBios) working group grant "*Population and community ecology consequences of intraspecific niche variation***"** Co-PI with D. Bolnick and K. McCann ($75,450)
2009-2012 **NSF DEB**: "*From individuals to communities: Consequence of ontogenetic functional diversity for community structure and functioning*" ($352,501 + REU supplements)
2008 **International Collaboration Award**, Rice University ($4,000)
2006-2007 **Faculty Senate Award** for Excellence in Research and Teaching. Univ. Virginia. ($25,000)
2006-2007 **NSF Dissertation Improvement Grant** ($9,596)
2006 **Sigma Xi Grant**-in-Aid of Research Award ($990)
2005 **Robert J. Huskey Award** ($500)
2004, 2005 Mountain Lake Biological Station Research Fellowship (2 total, $2,500 ea)
2003-2005 Pratt Bequest Fellowship ($31,900)
2003-2005 GSAS Fellowship ($3,000)

PUBLICATIONS

(NOTATION: ° HIGH SCHOOL STUDENT * UNDERGRADUATE STUDENT **GRADUATE STUDENT § POST DOC)

PEER REVIEWED:

Submitted & in review

C. N. Keiser§, I. Yuksel**, A. Dwarumpudi**, E. Every**, C. Tran**, H. Uustal**, J. Saltz, **V.H.W. Rudolf:** Host behavioral trait diversity as a driver of disease outbreak severity.

C.-S. Ma , **V. H. W. Rudolf,** Y. Peng, L.-N. Liang, B. J. Sinclair, F. Zhao, G. Ma, W. Zhang, H.-P. Yang, X.-J.W, Q.-C. Lin, L. Zhu[§]: Autumn warming drives insect decline by disrupting overwintering preparations.

H. Zou** **V.H.W. Rudolf**: Consequences of phenological shifts are determined by the number of generations per season.

H. Yin** and **V.H.W. Rudolf:** Beyond pairwise interactions: community-level consequences of temporally correlated phenological shifts.

2025

Z. Neale** and **V.H.W. Rudolf (2025)**: Thermal response rates of predators differ across co-occurring predator species. **Ecology 106(9): e70184**

L. Stockseth*, Z. Neale**, **V.H.W. Rudolf (2025)**: Strengthening of negative density dependence mediates population decline at high temperatures. **Ecology 106(3):e70030**

Z. Neale** and **V.H.W. Rudolf (2025)**: Latitudinal differences in thermal response curves across populations demonstrate context-dependent warming effects within species. **Oikos e10953**

2024

H. Yin** and **V.H.W. Rudolf (2024):** Time is of the essence: A general framework for uncovering temporal structures of communities. **Ecology Letters 27: e14481**

H. Zou**, X. Yan** and **V.H.W. Rudolf (2024)**: Time-dependent interaction modification generated from plant-soil feedback. **Ecology Letters 27: e14432**

2023

H. Zou** & **V.H.W. Rudolf (**2023**):** Bridging theory and experiments of priority effects. **Trends in Ecology & Evolution 12:** 1203-1216

Z. Neale** and **V.H.W. Rudolf**. (2023): Predation and competition drive trait diversity across space and Time. **Ecology** e4182.

H. Zou**, S. Schreiber, **V.H.W. Rudolf:** Stage-mediated priority effects and species life history shape long-term competition dynamics. **Proceedings of the Royal Society B: Biological Sciences 290,** 20231217

C. Carroll*, D. Saenz, **V. H. W. Rudolf** (2023): Tracking phenological distributions and interaction potential across life stages. **Oikos 8**: e09773

H. Zou** & **V.H.W. Rudolf** (2023)**:** Priority effects determine how dispersal affects biodiversity in seasonal communities. **The American Naturalist** 202, 140-151

2022

V. H. W. Rudolf (2022): Temperature and nutrient conditions modify the effects of phenological shifts in predator-prey communities. **Ecology 103: e3704**

S. Carter** & **V.H.W. Rudolf** (2022): Exploring the conditions that strengthen or weaken the ecological consequences of phenological synchrony. **The American Naturalist** 200: E1890-E296

2021

C-S. Ma, W. Zhang, Y. Peng, F. Zhao, X-Q. Chang, K, Xing, L. Zhu[§], **V. H.W. Rudolf** (2021): Climate warming promotes pesticide resistance through expanding overwintering range of a global pest. **Nature Communications 12:** 5351

G. Ma, C.-M. Bai, **V.H.W. Rudolf**, C.-S. Ma (2021): Night warming alters mean warming effects on predator-prey interactions by modifying predator demographics and interaction strengths. **Functional Ecology** 35: 2094-2107

V. H. W. Rudolf & L. Eveland: Ontogenetic diversity buffers communities against consequences of species loss. **Journal of Animal Ecology 90:**1492-1504

M. Boots, D. Childs, J. Crossmore**, H. Tidbury**, **V.H.W. Rudolf** (2021)**:** Experimental evidence that local interactions select against selfish behavior. **Ecology Letters 24:**1187-1192

B.J. Toscano[§] & **V.H.W. Rudolf** (2021): Developmental change in predators drives different community configurations. **The American Naturalist 197:** 719-731

D.R. Daversa, R.F. Hechinger, E. Madin, A. Fenton, A.I. Dell, E. Ritchie, **V.H.W. Rudolf**, J. Rohr, K. D. Lafferty (2021): Broadening the ecology of fear: Non-lethal effects arise from diverse responses to predation and parasitism. **Proceedings of the Royal Society B: Biological Sciences 288:** 20202966

B.J. Toscano[§], S. Figel*, **V.H.W. Rudolf** (2021)**:** Ontogenetic development underlies population response to mortality. **Oikos** 130: 464-475

2020

V.H.W. Rudolf (2020): A multivariate approach reveals diversity of ontogenetic niche shifts across taxonomic and functional groups. **Freshwater Biology 65:** 745-756

P.A. Clay**, M.A. Duffy, **V.H.W. Rudolf** (2020): Within-host priority effects and epidemic timing determine outbreak severity in coinfected populations **Proceedings of the Royal Society B: Biological Sciences 287:** 20200046

C.N. Keiser[§], **V.H.W. Rudolf**, M. C. Luksik°, J. B Saltz (2020): Sex-differences in disease avoidance behavior vary across modes of pathogen exposure. **Ethology 126: 304-312**

2019

P.A. Clay** & **V.H.W. Rudolf** (2019)**:** How parasite interaction strategies alter virulence evolution in multi-parasite communities. **Evolution 73**: 2189-2203

S. Carter** & **V.H.W. Rudolf** (2019): Shifts in phenological mean and synchrony interact to shape competitive outcomes. **Ecology 100:**e02826

S.B. Fey, D.A. Vasseur, K. Alujevic, K. J. Kroeker, M. L. Logan, J. P. DeLong, M. I. O'Connor, S. Peacor, **V. H.W. Rudolf**, R. L. Selden, A. Sih, S. Clusella-Trullas (2019): Opportunities for behavioral rescue under rapid environmental change. **Global Change Biology 25:** 3100-3120

V.H.W. Rudolf (2019)**:** The role of seasonal timing and phenological shifts for species coexistence. **Ecology Letters 22:**1324-1338 (recommended by faculty of 1000, a "must read")

C.J. Dibble**, **V.H.W. Rudolf** (2019)**:** Phenotype-environment matching predicts both positive and negative effects of intraspecific variation in a population. **The American Naturalist 194: 47-58**

P.A. Clay**, **V.H.W. Rudolf**, M.A. Duffy (2019): Within-host priority effects systematically alter pathogen coexistence. **The American Naturalist 193:** 187-199

P.A. Clay**, M. H. Cortez, M.A. Duffy, **V.H.W. Rudolf** (2019): Priority effects within coinfected hosts can drive unexpected population-scale patterns of parasite prevalence. **Oikos 128:** 571-583

2018

R. Costa-Pereira**, F. L. Souza, M. S. Araújo, **V.H.W. Rudolf** (2018): Prey limitation drives variation in allometric scaling of predator-prey interactions. **The American Naturalist 192**: E139-E149

V. H. W. Rudolf & A. Roman** (2018): Trophic structure alters consequences of environmental warming. **Oikos 127:** 1646-1656

R. Costa-Pereira**, **V.H.W. Rudolf**, F. L. Souza, M. S. Araújo (2018): Drivers of individual niche variation in coexisting species. **Journal of Animal Ecology** 87: 1452-1464

V.H.W. Rudolf & S. McCrory* (2018): Resource limitation alters effects of phenological shifts on interspecific competition. **Oecologia 188:** 515-523

V.H.W. Rudolf (2018)**:** Non-linear effects of phenological shifts link inter-annual variation to species interactions. **Journal of Animal Ecology 97**: 1395-1406

S. Carter**, D. Saenz, **V.H.W. Rudolf** (2018)**:** Shifts in phenological distributions reshape interaction potential in natural communities. **Ecology Letters 21:** 1143-1151

C. Keiser[§], **V.H.W. Rudolf**, S. Elizabeth*, E. Every*, J. Saltz (2018): Social context alters host behavior and infection risk. **Behavioral Ecology 29: 869-875**

C. Ma, L. Wang, W. Zhang, **V.H.W. Rudolf** (2018): Resolving biological impacts of multiple heat waves: interaction of hot and recovery days. **Oikos 127**: 662-633

C. Keiser[§], S. Vojvodic; I. Butler*; E. Sartain*, **V.H.W. Rudolf,** J. Saltz (2018): Queen presence mediates the relationship between collective behavior and disease susceptibility in ant colonies. **Journal of Animal Ecology 87:** 379-387

2017

B.J. Toscano[§], V. Hin, **V.H.W. Rudolf** (2017): Cannibalism and intraguild predation community dynamics: Coexistence, competitive exclusion, and the loss of alternative stable states. **The American Naturalist 190**: 617-630

B.G. Van Allen**, F.F. Dillemuth, A.J. Flick, M.F. Faldyn, D.R. Clark, **V.H.W. Rudolf**, B.D. Elderd (2017): Cannibalism and infectious diseases: friend or foe? **The American Naturalist 190:** 299-312

K.Takatsu**, **V.H.W.Rudolf**, O. Kishida (2017): Giant cannibals drive selection for inducible defence in heterospecific prey. **Biological Journal of the Linnean Society** 120: 675-685

B.G. Van Allen**, N. L. Rasmussen**, C.J. Dibble**, P.A. Clay**, **V.H.W. Rudolf**[+] (2017)**:** Top predators determine how biodiversity is partitioned across time and space. **Ecology Letters** 20:1004-1013 ([+]Corresponding author)

V.H.W. Rudolf & B.G. Van Allen** (2017): Legacy effects of developmental stages determine the functional role of predators. **Nature - Ecology & Evolution 1: 0038**

2016

B.J. Toscano[§], B. R. Rombado*, **V.H.W. Rudolf** (2016): Deadly competition and life-saving predation: the potential for alternative stable states in a stage-structured predator-prey system. **Proceedings of the Royal Society B: Biological Sciences** 283: 20161546

B.G. Van Allen** and **V.H.W. Rudolf** (2016): Carryover effects drive competitive dominance in spatially structured environments. **Proceedings of National Academy of Sciences (PNAS) 113**: 6939-6944

N.L. Rasmussen** and **V.H.W. Rudolf** (2016): Individual and combined effects of two types of phenological shifts on predator-prey interactions. **Ecology** 12: 3414-3421

C.J. Dibble** and **V.H.W. Rudolf** (2016): Intraspecific trait variation and colonization sequence alter community assembly and disease epidemics. **Oikos125:** 229-236

2015

W. Zhang, **V.H.W. Rudolf,** C. Ma (2015): Stage-specific heat effects: Timing and duration of heat waves alter demographic rates of a global insect pest. **Oecologia 179:** 947-957

B.G. Van Allen** and **V.H.W. Rudolf** (2015): Habitat-mediated carry-over effects lead to context dependent outcomes of species interactions. **Journal of Animal Ecology 84:** 1646-1656

N.L. Rasmussen** and **V.H.W. Rudolf** (2015): Phenological synchronization drives demographic rates of populations. **Ecology 96:** 1741-1753 (Featured on the cover)

G. Ma, **V.H.W. Rudolf**, C. Ma (2015): Extreme temperature events alter demographic rates, relative fitness, and community structure. **Global Change Biology 21: 1794-1808**

2014

L. Krenek* & **V.H.W. Rudolf** (2014)**:** Allometric scaling of indirect effects: body size ratios predict non-consumptive effects in multi-predator systems. **Journal of Animal Ecology 83: 1461-1468**

C. J. Dibble**, S.R. Hall, **V.H.W. Rudolf** (2014)**:** Intraspecific priority effects and disease interact to alter population growth. **Ecology 95:** 3354-3363

V.H.W. Rudolf, N. L. Rasmussen**, C.J. Dibble**, B.G. Van Allen** (2014): Resolving the roles of body size and species identity in driving functional diversity. **Proceedings of the Royal Society B: Biological Sciences 2813:** 20133203 (Featured on the cover)

N. L. Rasmussen**, B. Van Allen**, **V.H.W. Rudolf** (2014)**:** Linking phenological shifts to species interactions through size-mediated priority effects. **Journal of Animal Ecology 83:** 1206-1215

2013

V.H.W. Rudolf & N. L. Rasmussen** (2013): Population structure determines functional differences among species and ecosystems processes. **Nature Communications 4:**2318

V.H.W. Rudolf & M. Singh* (2013)**:** Disentangling climate change effects on species interactions: Effects of temperature, phenological shifts, and body size. **Oecologia 173:** 1043-1052

V.H.W. Rudolf & N. L. Rasmussen** (2013): Ontogenetic functional diversity: Size-structure of a keystone predator drives functioning of a complex ecosystem. **Ecology 94:** 1046-1056

B.G. Van Allen** & **V.H.W. Rudolf** (2013)**:** Ghost of habitats past: Environmental carry-over effects drive population dynamics in novel habitat. **American Naturalist 181:** 596-608

W. Parson*, B. Zhong*, **V.H.W. Rudolf**[+] (2013)**:** Mating status and kin recognition influence the strength of cannibalism. **Animal Behaviour 85: 365-369** ([+]Corresponding author)

2012

V.H.W. Rudolf, A. Pedersen, I. Sorell (2012): Revenge of the host: Cannibalism as a driving force of the evolutionary dynamics in host-parasitoid systems. **Evolutionary Ecology Research 14:** 31-49

B.G. Van Allen**, A. E. Dunham, C. M. Asquith, **V.H.W. Rudolf** (2012): Life history predicts risk of species decline in a stochastic world. **Proceedings of the Royal Society: B 279:** 2691-2697

V.H.W. Rudolf (2012): Seasonal shifts in predator body size diversity and trophic interactions in size-structured predator-prey systems. **Journal of Animal Ecology 81:** 524-532 (Featured on cover)

A.T. Tate** & **V.H.W. Rudolf** (2012): Immune priming across life stages and generations: Implications for infectious disease dynamics in insects. **Oikos 121:**1083-1092

2011

P. Delclos* & **V.H.W. Rudolf**[+] (2011): Effects of size structure and habitat complexity on predator-prey interactions. **Ecological Entomology 36:** 744-750 ([+]Corresponding author)

D.A. Vasseur, P. Amarasekare, **V.H.W. Rudolf**, J.M. Levine (2011): Eco-evolutionary dynamics enable coexistence via neighbor-dependent selection. **American Naturalist 178:** E96-E109

T.E.X. Miller & **V.H.W Rudolf**[+] (2011): Thinking inside the box: community-level consequences of stage structured populations. **Trends In Ecology and Evolution 26:** 457-466 ([+]Corresponding author)

D.I. Bolnick, P. Amarasekare, M.S. Araújo, R. Bürger, J. Levin, M. Novak, **V.H.W. Rudolf**, S. Schreiber, M. Urban, D. Vasseur (2011): Why intraspecific variation matters in community ecology. **Trends In Ecology and Evolution 26**: 183-192

V.H.W. Rudolf, K. D. Lafferty (2011): Stage Structure alters how complexity affects stability. **Ecology Letters 14**: 75-79 (*Faculty of 1000 recommended as a "**must read**" and featured in the public media in ScienceDaily News*)

2010

V.H.W. Rudolf, M. Kamo, M. Boots (2010): Cannibals in space: The co-evolution of cannibalism and dispersal in spatially structured populations. **American Naturalist 175:** 513-524

A. M. Thomas* & **V.H.W. Rudolf**[+] (2010): Challenges of metamorphosis in invertebrate hosts: Maintaining parasite resistance across life-history stages. **Ecological Entomology 35**: 200-205 ([+]Corresponding author)

L. Yang & **V.H.W. Rudolf**[+] (2010): Phenology, ontogeny, and the effects of climate change on the timing of species interactions. **Ecology Letters 13:** 1-10 ([+]Corresponding author) (*Faculty of 1000 recommended as a "**must read**" & "**hidden jewel**"*)

2009

A. E. Dunham & **V.H.W. Rudolf** (2009): Evolution of sexual size monomorphism: The influence of passive mate guarding. **Journal of Evolutionary Biology 22**: 1376-1386

2008

V.H.W. Rudolf (2008)**:** The impact of cannibalism in the prey on predator-prey systems. **Ecology 89:** 3116-3127

V.H.W. Rudolf & J. Armstrong* (2008)**:** Emergent impacts of cannibalism and size-refuges in the prey on intraguild predation systems. **Oecologia 157:** 675- 686

S. Schreiber[+] & **V.H.W. Rudolf**[+] (2008)**:** Crossing habitat boundaries: Coupling the dynamics of ecosystems through complex life cycles. **Ecology Letters 11:** 576-587 ([+]Authors contributed equally)

V.H.W. Rudolf (2008): Impact of cannibalism on predator-prey dynamics: Size-structured interactions and apparent mutualism. **Ecology 89:** 1650-1660

V.H.W. Rudolf (2008)**:** Consequences of size-structure in the prey for predator-prey dynamics: The composite functional response. **Journal of Animal Ecology 77**: 520-528

2007

V.H.W. Rudolf (2007): Consequences of stage-structured predators: cannibalism, behavioral effects and trophic cascades. **Ecology 88:** 2991-3003

V.H.W. Rudolf (2007): The interaction of cannibalism and omnivory: Consequences for community dynamics. **Ecology 88:** 2697-2705

V.H.W. Rudolf & J. Antonovics (2007): Disease transmission by cannibalism: Rare event or common occurrence. **Proceedings of the Royal Society London: B Biological Science 274:** 1205-1210 (*featured in the public media in **LifeScience news***)

J. Antonovics, J. Abbate, C.H.Baker, D. Daley, M.E. Hood, C.E.Jenkins, L.J.Johnson, J.J. Murray, V.Panjeti, **V.H.W. Rudolf**, D. Sloan, J. Vondrasek (2007): Evolution by any other name….Antibiotic resistance and avoidance of the e-word. **PLOS Biology 5:** 137-139

G. Ferris* & **V.H.W. Rudolf**[+] (2007): Detection of conspecific predators in larvae of the dragonfly *Plathemis lydia*. **Ecological Entomology 32:** 283-288 ([+]Corresponding author)

V.H.W. Rudolf & M.-O. Rödel (2007): Phenotypic plasticity and optimal timing of metamorphosis under uncertain time constraints. **Evolutionary Ecology 21:** 121-142

Pre 2007

H.M. Wilbur[+] & **V.H.W. Rudolf**[+] (2006): Life History Evolution in uncertain environments: Bet-hedging in time. **American Naturalist**. **168**: 398-411 ([+]Authors contributed equally)

V.H.W. Rudolf (2006): The influence of size-specific indirect interactions in predator-prey systems. **Ecology 87:** 362-271

V.H.W. Rudolf & J. Antonovics (2005): Species coexistence and pathogens with frequency-dependent transmission. **American Naturalist 166**: 112-118.

V.H.W. Rudolf & M.-O. Rödel (2005): Oviposition site selection in a complex and variable environment: The role of habitat quality and conspecific cues. **Oecologia 142**:316-325

M.-O. Rödel, **V.H.W. Rudolf**, S. Froschammer and K.E. Linsenmair (2004): Life History of a West African tree-hole breeding frog, *Phrynobatrachus guineensis,* Guibé and Lamotte, 1961 (Amphibia: Anura: Petropedetidae); Ann Arbor, **Special Publications of the University of Michigan Museum of Zoology**: 31-44

Rödel M.-O., T.U. Grafe, **V.H.W. Rudolf** & R. Ernst (2002): Review of West African spotted Kassina, including a description of *Kassina schioetzi sp*. noV.(Amphibia: Anura: Hyperoliidae). **Copeia 3**: 800-814

BOOK CHAPTERS

V.H.W. Rudolf: Trait-mediated indirect interactions in size-structure populations: Causes and consequences for species interactions and community dynamics. *In* **Interaction Richness and Complexity: Ecological and Evolutionary Aspects of Trait-Mediated Indirect Interactions.** Eds.: T. Ohgushi, O. Schmitz, R.D. Holt. , Cambridge University Press (2012)

PROFESSIONAL PRESENTATIONS

Invited Seminars

2025 ETH Zürich, Integrative Biology
University of Arkansas, Department of Biology
University of Florida, Holt Colloquium series

2024 University of California Davis, Program in Ecology and Evolution
Miami University, Department of Biology

2023 Steven F. Austin State University, Biology Department

2022 Duke University, Program in Ecology and Evolution
Invited speaker: *Unifying Ecology Across Scales*, Gordon Research Conference

2021 Emory University, Population Biology, Ecology, and Evolution Program

2020 University of Toronto, Department of Ecology & Evolutionary Biology
University of Mississippi, Department of Biology

2018 Invited Plenary talk, First International Congress of Biological Control, Beijing, China
University of Georgia, Odum School of Ecology
2017 University of Michigan, Ann Arbor, Ecology & Evolution
University of South Dakota, Department of Biology
2016 University of California, Davis, Ecology & Evolution Seminar Series
2015 Santa Fe Institute, New Mexico
Invited Keynote Speaker, Oikos (Swedish Ecological Society) Annual Meeting
University of Toronto, Biology Seminar Series
Rutgers University, School of Environment & Biological Science
University of Texas at Arlington, Biology Department
2014 Indiana University, Department of Biology
Case Western Reserve University, Department of Biology
Invited Keynote Speaker, Ecological Society of Japan, Hiroshima, Japan
Baylor University, Department of Biology
2013 Chinese Academy of Agricultural Sciences, Climate Change Biology Research Group, China
UC San Diego, Section of Ecology, Behavior and Evolution
Auburn University, School of Fisheries, Aquaculture, and Aquatic Sciences
Florida International University, Department of Biology, Graduate School Research Colloquium
2012 Invited Keynote Speaker (for Thematic Topic), British Ecological Society Annual Meeting
University of Connecticut, Department of Ecology & Evolutionary Biology
University of Florida, Department of Biological Sciences
2011 Robert May Lecture, Princeton University, Department of Ecology & Evolutionary Biology
2010 University of Umea, Umea, Sweden, Department of Biology
Texas A&M University, Department of Wildlife & Fisheries Sciences
University of Houston, Houston, Department of Biology
2009 University of Texas, Austin, Department of Integrative Biology
Auburn University, Department of Fisheries & Allied Aquacultures, Department of Biology
Sam Houston State University, Department of Biology
University of Virginia, Department of Biology
2008 Texas State University San Marcos, Department of Biology
University of Sheffield, UK, Department of Animal and Plant Sciences
American Society of Naturalist, Young Investigator Symposium, Minneapolis
2007 UC Santa Barbara, Department of Ecology, Evolution and Marine Biology
College of William and Mary, Department of Biology & Department of Mathematics
Virginia Tech University, Department of Biological Sciences
2006 Rice University, Department of Ecology and Evolution
Georgia Tech University, Department of Biology
Annual meeting of the American Entomological Society (BES), Charlottesville, USA
2003 Department of Ecology and Evolution, SUNY Stony Brook, NY

Scientific meetings

H. Yin & **V.H.W. Rudolf:** *Temporal community structure determines consequences of phenological shifts and species interactions. Annual Meeting, Ecological Society of America, 2025*

V.H.W. Rudolf & Z. Neale: *Temperature dependent predation: unveiling local and latitudinal complexities in thermal responses*. American Society of Naturalist Meeting, Asilomar January 5-7th 2025

Zou,H.-X. & **V.H.W.Rudolf**: *Consequences of priority effects change with the number of generations*. Annual Meeting, Ecological Society of America. Long Beach, CA, 2024.

Zou,H.-X. & **V.H.W.Rudolf**: *Bridging theory and practice of priority effects*. Annual Meeting, Ecological Society of America. Portland, OR, 2023.

Zou, H.-X., Xinyi Yan, and **V.H.W. Rudolf**: *Time-dependent interaction modifications: Insights from plant-soil feedback*. Annual Meeting, Ecological Society of America. Portland, OR. 2023

Zou, H.-X., S.J. Schreiber, and **V.H.W. Rudolf**. *Stage-mediated priority effects and species life history shape long-term competition dynamics.* American Society of Naturalists Meeting. Asilomar 2023

CA.Z. Xiong & **V. H. W. Rudolf:** *Life stage specific thermal tolerance explains climate vulnerability of amphibians globally.* Annual Meeting of the Ecological Society of America & Canadian Society of Ecology & Evolution, Montreal, Canada, August 14-19, 2022,

C-S. Ma, G. Ma, & **V. H. W. Rudolf**: *Night Warming, insect demography, and predation pressure*. Annual Meeting of the Ecological Society of America & Canadian Society of Ecology & Evolution, Montreal, Canada, August 14-19, 2022,

H. Zou & **V. H. W. Rudolf**: *Priority effects determine how dispersal affects biodiversity in seasonal communities*. Annual Meeting of the Ecological Society of America & Canadian Society of Ecology & Evolution, Montreal, Canada, August 14-19, 2022

Z. Neale & **V.H.W. Rudolf**: *Differences in thermal responses of feeding rates can reshuffle predator hierarchies under warming.* Annual Meeting of the Ecological Society of America & Canadian Society of Ecology & Evolution, Montreal, Canada, August 14-19, 2022

V. H.W. Rudolf & S. Carter: *Linking phenological synchrony to population demography and species interactions*. American Society of Naturalist Asilomar Virtual meeting, January 9-11th 2021.

H. Zou & **V. H. W. Rudolf**: *Phenological shifts and season length shape long-term competition*. American Society of Naturalist Asilomar Virtual meeting, January 9-11th 2021.

Keiser C.N., Saltz J.B., **Rudolf V.H.W**.: *Sex variation in parasite avoidance behavior*. Association for the study of Animal Behavior Virtual Conference, 16th July 2020.

Clay, P. A. **V.H.W. Rudolf** (2019): *The role of coinfection and epidemic phenology on epidemic severity*. Annual Meeting of the Ecological Society of America, August 11-16, 2019, Louisville, KT

Neale, J., **V.H.W. Rudolf** (2019): *Does predation limite the variability in prey traits among communities?* Annual Meeting of the Ecological Society of America, August 11-16, 2019, Louisville, KT

V.H.W. Rudolf (2018). *Predicting consequences of climate change in a community context: the role of species interactions and indirect effects*.Plenary Lecture at First International Congress of Biological Control: Biological Control for a Healthy Planet, May 14- 16 2018, Beijing, China

Toscano B.J., **V.H.W. Rudolf** (2018) *Long-term dynamics of life-history intraguild predation*. 150 Years of the American Naturalist: A Conference of the American Soceity of Naturalist, January 5-9,2018 Asilomar, CA

V.H.W. Rudolf (2018): *Linking phenological shifts to species interactions in a changing world*. 150 Years of the American Naturalist: A Conference of the American Soceity of Naturalist, January 5-9,2018 Asilomar, CA

Clay, P. A. **V.H.W. Rudolf** (2017): *The impact of within-host priority effects on multi-parasite epidemics*. Annual Meeting of the Ecological Sciety of America, August 6-11, 2017, Portlant, OR

Costa-Pereira R. , **V. H.W. Rudolf**, F.L. Souza, M. S. Araujo (2017: *Unraveling the causes and consequences of individual niche specialization in ecologically similar species.* Annual Meeting of the Ecological Sciety of America, August 6-11, 2017, Portlant, OR

Carter S, **V.H.W. Rudolf** (2017). *Linking phenological synchrony to species interactions*. Annual Meeting of the Ecological Sciety of America, August 6-11, 2017, Portlant, OR

Keiser C.N., Saltz J.B., **Rudolf V.H.W** (2017) *Social context alters host behavior and infection risk*. Ecology and Evolution of Infectious Disease. Santa Barbara, CA.

Keiser C.N., Vojvodic S., Butler I., Sartain E., **V.H.W. Rudolf**, J.B. Saltz (2017): *Queen presence mediates collective behavior and disease susceptibility in ant colonies*. Animal Behavior Society, June 12-16 2017, Toronto

S. Carter, D Saenz, **V.H.W. Rudolf** (2016). *Single measures of phenology do not accurately predict phenological shifts.* Annual meeting of the Ecological Society of America (ESA) August 7-12, 2016, Fort Lauderdale, Florida.

Toscano B.J**.**, V. Hin, **V.H.W. Rudolf**. (2016). Cannibalism inhibits predator persistence in life-history intraguild predation systems. Ecological Society of America Meeting. Fort Lauderdale, FL, USA.

Toscano B.J., V. Hin, V.H.W. Rudolf. (2016). Cannibalism inhibits predator persistence in life-history intraguild predation systems. Beckman Symposium. Irvine, CA, USA.

B.G. Van Allen, A. Flick, M. Faldyn, D. Clark, **V.H.W. Rudolf,** B. Elderd (2016). *Cannibalism and infectious disease: friend or foe?* Evolution 2016, June 17-21, Austin, TX

N. L. Rasmussen & **V.H.W. Rudolf** (2016). *Consequences of shifts in the mean and variance in prey phenology for predator-prey interactions.* „Unifying biological principles across disciplines" A Conference of the American Soceity of Naturalist, January 10-14, Asilomar, CA

S. Carter, D Saenz, **V.H.W. Rudolf** (2016). *Single measures of phenology do not accurately predict phenological shifts.* „Unifying biological principles across disciplines" A Conference of the American Soceity of Naturalist, January 10-14, Asilomar, CA

B. Toscano, B. Rombado, **V.H.W. Rudolf** (2016). *Juvenile competitive bottleneck dynamics in freshwater zooplankton.* „Unifying biological principles across disciplines" A Conference of the American Soceity of Naturalist, January 10-14, Asilomar, CA

V.H.W. Rudolf, B.G. Van Allen, C.J. Dibble, N. L. Rasmussen, P. A. Clay (2016). *The temporal dynamics of Biodiveristy.* „Unifying biological principles across disciplines" A Conference of the American Soceity of Naturalist, January 10-14, Asilomar, CA

V.H.W. Rudolf (2015). *Ontogenetic niche shifts in complex communities.* Conference on „The evolutionary ecology of complex life investment strategies", Santa Fe Institute October 28-30, Santa Fe, USA

P.A. Clay & **V.H.W. Rudolf** (2015*). Identifying mechanisms driving assembly of parasite communities within hosts*, Annual meeting of the Ecological Society of America (ESA), 9- 14 August, 2015, Baltimore, USA

N.L. Rasmussen &**V.H.W. Rudolf** (2015). *Consequences of shifts in the mean and variation in prey phenology for predator-prey interactions*, Annual meeting of the Ecological Society of America (ESA), 9- 14 August, 2015, Baltimore, USA

S.K. Carter &**V.H.W. Rudolf** (2015). *Single measures of phenology do not accurately predict phenological shifts*, Annual meeting of the Ecological Society of America (ESA), 9- 14 August, 2015, Baltimore, USA

C.J. Dibble &**V.H.W. Rudolf** (2015). *Eco-evolutionary consequences of trait variance depend on the trait mean and the local environment*, 13 Ecology and Evolution of Infectious Diseases conference (EEID), May 26-29, Athens, Georgia

V.H.W. Rudolf (2014). *Linking variation in the timing of species interactions to the dynamics of species interactions and community assembly*, Annual meeting of the Ecological Society of America (ESA), 10- 15 August, 2014, Sacramento, USA

N.L. Rasmussen & **V.H.W. Rudolf** (2014). *Changes in phenological synchronization within populations alter demographic rates*, Annual meeting of the Ecological Society of America (ESA), 10- 15 August, 2014, Sacramento, USA

P.A. Clay & **V.H.W. Rudolf** (2014). *The consequences of asymmetric parasite interactions for the evolution of virulence* , Annual meeting of the Ecological Society of America (ESA), 10- 15 August, 2014, Sacramento, USA

P.A. Clay & **V.H.W. Rudolf** (2014). *Complex parasite interactions and the evolution of virulence* Ecology and Evolution of Infectious Disease, 12th Annual Meeting, 1-4 June, 2014, Fort Collins, Colorado

V.H.W. Rudolf (2014). *Thinking inside the box: community level consequences of stage-structured populations.* 61st Annual Meeting of the Ecological Society of Japan, 14-18 March, 2014, Hiroshima, Japan

V.H.W. Rudolf (2014). *Resolving the roles of body size and species identity in driving functional differences among consumers"* 21st Century Naturalists: Integrating pattern and processes to understand biodiversity, Conference of the American Society of Naturalists 13-15 January, 2014, Asilomar, CA, USA

N.L. Rasmussen, B.G. Van Allen, **V.H.W. Rudolf** (2013). *Consequences of phenological shifts for species interactions: testing the importance of size-mediated priority effects*. Annual meeting of the Ecological Society of America (ESA), 5- 8 August, 2013, Minneapolis, USA

C.J. Dibble & **V.H.W. Rudolf** (2013). *Dispersal "type" and amount interact to affect ecological (and evolutionary?) dynamics in a zooplankton metapopulation*. Annual meeting of the Ecological Society of America (ESA), 5- 8 August, 2013, Minneapolis, USA

Van Allen, B. and V.H.W. Rudolf. June 2013. Developmental plasticity and maternal effects drive population and community dynamics in a flour beetle system. Evolution. Snowbird UT.

Rasmussen, N.L., B.G. Van Allen, and V.H.W. Rudolf. (2013) *Consequences of phenological shifts for species interactions: Testing the importance of size-mediated priority effects using a dragonfly naiad system.* Society for Freshwater Science Annual Meeting. Jacksonville, FL

B.G. Van Allen & **V.H.W. Rudolf** (2013).*Environmental carry-over effects drive context dependent competitive dynamics*. Annual meeting of the Ecological Society of America (ESA), 5- 8 August, 2013, Minneapolis, USA

V.H.W. Rudolf (2012). *Thinking inside the box: community level consequences of stage-structured populations.* Keynote lecture - Annual meeting of the British Ecological Society (BES), 17-20 December2012, Birmingham, UK

V.H.W. Rudolf (2012). *Disentangling climate change effects on species interactions: Body size mediates interaction of temperature and phenological shifts."*Climate change and species interactions: Ways forward" Workshop, 13-16 November 2012, Cary Institute for Ecosystem Studies, NY

V.H.W. Rudolf (2012). *Disentangling climate change effects on species interactions: Body size mediates interaction of temperature and phenological shifts.* Annual meeting of the Ecological society of America (ESA), 6- 9 August 2012, Portland, OR, USA

N.L. Rasmussen & **V.H.W. Rudolf** (2012).*The role of arrival phenology and size-mediated priority effects for species interactions in simple food webs.* Annual meeting of the Ecological society of America (ESA), 6- 9 August 2012, Portland, OR, USA

C.J. Dibble & **V.H.W. Rudolf** (2012). *Intraspecific priority effects mediate population growth and trait change in a host-pathogen system.*Annual meeting of the Ecological Society of America (ESA), 6- 9 August 2012, Portland, OR, USA

V.H.W. Rudolf & N. L. Rasmussen (2011) *From individuals to ecosystems: Consequences of ontogentic niche shifts for community structure and ecosystem functioning.* Annual meeting of the Ecological society of America (ESA), 8-12 August 2011, Austin,TX, USA

E.E. Mattson, V.H.W. Rudolf, C.J. Dibble (2011) *Ontogenetic niche shifts, juvenile bottlenecks, and the dynamics of predator-prey systems.* Annual meeting of the Ecological society of America (ESA), 8-12 August 2011, Austin,TX, USA

D.A. Vasseur, P. Amarasekare, **V.H.W. Rudolf**, J.M. Levine (2011): *Eco-evolutionary dynamics enable coexistence via neighbor-dependent selection.* Annual meeting of the Ecological society of America (ESA), 8-12 August 2011, Austin,TX, USA

D.I. Bolnick, P. Amarasekare, M.S. Araújo, R. Bürger, J. Levin, M. Novak, **V.H.W. Rudolf**, S. Schreiber, M. Urban, D. Vasseur (2011) *Why does intraspecific variation matter in ecology?* Annual meeting of the Ecological society of America (ESA), 8-12 August 2011, Austin,TX, USA

B.G. Van Allen & **V.H.W. Rudolf** (2011) *Natal habitat alters population dynamics in novel environments.*Annual meeting of the Ecological society of America (ESA), 8-12 August 2011, Austin,TX, USA

N.L. Rasmussen & **V.H.W. Rudolf** (2011) *Phenology of species interactions: Size-mediated priority effects and the dynamics of predator-prey systems in seasonal communities.* Annual meeting of the Ecological society of America (ESA), 8-12 August 2011, Austin,TX, USA

V.H.W. Rudolf (2008) *The impact of size-structure and cannibalism on the dynamics of communities*, Annual Evolution meeting, 20-24 June 2008, Minneapolis, USA

V.H.W. Rudolf & L. Yang (2008) *The phenology of species interactions: The role of ontogeny, body size, and climate change.* Annual meeting of the Ecological society of America (ESA), 3-8 August 2008, Milwaukee, USA

A.E. Dunham & **V.H.W. Rudolf** (2008) *The enigma of sexual size monomorphism in strepsirrhines: A new explanation.* Annual meeting of the American Primatological Society, June 2008, FL

V.H.W. Rudolf (2007) *Cannibalism in the prey: Emergent indirect interactions, mortality risk reduction, and consequences for predator-prey dynamics.* Annual meeting of the Ecological society of America (ESA), 5-10 August 2007, San Jose, USA

V.H.W. Rudolf (2006) *Indirect interactions in stage-structure predator-prey systems: Cannibalism, trait mediated interactions and trophic cascades*. Annual meeting of the Ecological society of America (ESA), 6-11 August 2006, Memphis, USA

V.H.W. Rudolf (2006) *Indirect interactions in stage-structure predator-prey systems: Cannibalism, trait mediated interactions and trophic cascades*. Peter Yodzis Colloquium in Fundamental Ecology: "Biodiversity, Structure and Ecosystem Functioning", 16-18 May 2006, Toronto, Canada

V.H.W. Rudolf (2005) *The influence of size-specific indirect interactions in predator-prey systems*. Annual meeting of the British Ecological Society (BES), 5-7 September 2005, Hatfield, UK

V.H.W. Rudolf (2005) *The influence of size-specific interactions in predator-prey systems*. Special symposium of the BES Aquatic Ecology group: Body size and the organisation of aquatic communities. 2-4 September, Hatfield, UK

V.H.W. Rudolf (2005) *The influence of size-specific interactions in predator-prey systems*. Annual meeting of the Ecological society of America (ESA), 7-12 August 2005, Montreal, Canada

Rödel, M.-O., Kosuch, J., Adeba, P.J., Assemian, N.E., Kouamé, G.N., Tohé, B., Ernst, R., Hillers, A., **Rudolf, V.H.W**., Schorr, G., Linsenmair, K.E., Veith, M. (2003): *Bio-Diversity changes in West African amphibian communities: global, regional or local causes? Sustainable use and conservation of biological diversity, a challenge for society*, International Symposium 1-4 December 2003, Berlin: 174-175.

V.H.W. Rudolf, Rödel, M.-O (2002): *Tree-hole breeding frogs in the Upper Guinea rain forest, West Africa*; Conference of the Society of Ecology (GFÖ), 16–20 September 2002, Cottbus, Germany (32): 160

Rödel, M.-O., **V.H.W. Rudolf** (2002): *Tree-hole breeding frogs in the Upper Guinean rain forest, West Africa*. Joint meeting of Ichthyologists and Herpetologists, July 3-8, 2002, Kansas City: 225-226.

Rödel, M.-O., J. Kosuch, R. Ernst, **V.H.W. Rudolf**, G. Schorr, C. Harbig, S. Frohschammer, G. Leistner, M. Wegmann, P.J. Adeba, G.N. Kouamé, A.A. Cudjoe, K.E. Linsenmeir & M. Veith (2001): *Amphibian diversity and diversity changes in West Africa: global, regional or local causes*? – German Programme on Biodiversity and Global Change (Phase I, 2000-2004), funded by BMBF, status report 2001: 142-143.

TEACHING EXPERIENCE

Instructor Rice University	BIOS 431 Emerging infectious diseases (capstone course)
Instructor Rice University	BIOS 331 Biology of infectious diseases
Instructor Rice University	BIOS 306 Undergraduate Independent Research in EEB
Instructor Rice University	BIOS 403/404 Undergraduate Honors Research in EEB
Instructor Rice University	BIOS 520 Student Seminar in Ecology and Evolution
Instructor Rice University	BIOS 541/542 Special Topics in Ecology & Evolution
Instructor Rice University	BIOS 562 Topics in Ecology and Evolution
Instructor Rice University	BIOS 568 Topics in Biodiversity
Instructor Rice University	BIOS 569 Graduate Core Course
Instructor Rice University	BIOS 581 Outreach and Development
Instructor Rice University	BIOS 585 Graduate Seminar
Instructor Rice University	BIOS 591 Graduate Teaching
Instructor Rice University	BIOS 801 Graduate Research

ADVISING

Postdoctoral fellows:

- Benjamin Toscano, NSF & Beckerman Fellow (2015-2018)
- C. Nick Keiser, Rice Academy Fellow (2016 - 2018)

PhD students:

- Lydia Cox (in progress)
- Aime Holmes (in progress)
- Hannah Yin (in progress)
- Hengxing Zou (2024)
- Zoe Neale, Rice University (2023)
- Shannon Carter, Rice University (2019)
- Patrick Clay, Rice University (2019)
- Nick Rasmussen, Rice University (2014)
- Benjamin van Allen, Rice University (2014)
- Christopher Dibble, Rice University (2014)

PhD Committee member

Current

- Kate Manges, EEB, Rice University
- Akiem Gough, EEB, Rice University
- Deron-Jay Bakker, EEB, Rice University
- Margaret Baker, EEB, Rice University
- Modeline Celestin, EEB, Rice University
- Camryn Kritzell, EEB, University of Houston
- Jassica Ford, EEB, McGill University, Montreal, Canada

Past

- Gihan Jayasingh, EEB, Rice University
- Ali Campell, EEB, Rice University
- Jade Tonos, EEB, Rice University
- Josh Fowler, Rice University
- Dan Gorczyngski, EEB, Rice University
- Corwin Miller, Biochemistry and Cell Biology, Rice University
- Michael Chislock, Biological Sciences, Auburn University
- Roger Shaw, Integrative Biology, University of Texas, Austin
- Lizette Leon-Rodriguez, Earth Sciences, Rice University
- Becky Minzoni, Earth Sciences, Rice University
- Benjamin Slotnick, Earth Sciences, Rice University
- Therese Lamperty, EEB, Rice University
- Eric Wise, EEB, Rice University
- Marion Donald, EEB, Rice University
- Scott Chamberlain, EEB, Rice University
- Christopher Gabler, EEB, Rice University
- Andrew Davitt, EEB, Rice University
- Maria Mesa-Lopez, EEB, Rice University
- Onja Razafindratsima, EEB, Rice University
- Christopher Roy, EEB, Rice University
- Michelle Sneck, EEB, Rice University
- Michelle Downey, EEB, Rice University
- Andrew Bibian, EEB, Rice University
- Bradley Ochocki, EEB, Rice University
- Brian Maintner, EEB, Rice University
- Joshua Hwang, EEB, Rice University

Undergraduate students (independent research & senior thesis advisor)

2025-2026

- Craig Pentman: *Effect of acclimation on population responses to temperature extremes*
- *Zoe Soltero: Temperature Increases B. scimitra Predation with Minimal Prey Selectivity on D. pulex and D. laevis*
- *Quin Hernandez: Temperature Increases B. scimitra Predation with Minimal Prey Selectivity on D. pulex and D. laevis*

2024-2025

- Craig Pentman: *Seasonal structure of odonate communities*
- Faith Hill: *Effect of acclimation on thermal response curves*

2023-2024

- Wiliam Liu: *Demographic response of a copepod predator to warming*
- Sophia Figueroa: *Temperature effects on predator-prey dynamics in a zooplankton system*

- Faith Hill: *Combined effects of nitrogen and phosphors on* Daphnia pulex *demographics*
- Tolulope Adams: *Anti-predator behavior of tadpoles across temperatures*
- Ziyin (Jasmine) Xiong: *Thermal sensitivities of amphibians across life stages*

2022-2023
- Sharon Quin: *Density regulation of population across temperature gradient*
- Ziyin (Jasmine) Xiong: *Thermal sensitivities of amphibians across life stages*

2021-2022
- Ziyin (Jasmine) Xiong: *Thermal sensitivities of amphibians across life stages*
- Lillie Stockseth: *Competitive dynamics along a temperature gradient*
- Calvin Carroll: *Timing of phenological events and species interactions across life stages*

2020-2021
- Ziyin (Jasmine) Xiong: *Thermal sensitivities of amphibians across life stages*
- Calvin Carroll: *Timing of phenological events and species interactions across life stages*
- Kyle Dickens: *An experimental test of the terminal investment hypothesis*

2019-2020
- Calvin Carroll: *Temperature effect on cannibalistic behavior and individual traits.*
- Kyle Dickens: *Infectious diseases and life-history trade-offs in Daphnia.*

2018-2019
- Calvin Carroll: *Temperature effect on cannibalistic behavior and individual traits.*

2017-2018
- Sasha Figel: *Compensatory dynamics under stage specific harvesting regimes.*

2016-2017
- Jodie Nghiem: *Evolution of cannibalism, dispersal and kin discrimination under food limitation.*
- Imani Butler: *Queen loss and resistance to infections.*
- Lizzy Sartain: *Queen loss, collective behavior and colony collapse.*

2015-2016
- Jodie Nghiem: *Cannibalism under food limitation.*
- Bianca Rombado: *Juvenile competitive bottlenecks with ontogenetic niche shifts.*
- Rachel Buissereth: *Dilution effects and competition in host-pathogen systems.*
- Belle Harris: *Cannibalism, fitness, and* c*arry-over effects.*
- Imani Butler: *Effects of stress on* s*ex specific cannibalism behavior.*

2014-2015
- Jakie Olive: *Multidimensional analysis of emerging infectious diseases and their potential for global transmission.*
- Linda Giang: *Food quality and cannibalistic behavior in Tribolium.*
- Rachel Buissereth: *Dilution effects and competition in host-pathogen systems.*
- Laura Krannich: *Parasites mediated priority effects*
- Lauren Gernon: *Experimental* e*volution of cannibalism and kin-recognition*
- Carly Beidul: *Genetic and sex specific determinants of cannibalistic behavior*
- Raven Wrencher: *Kin selection in Tribolium across and within strains*

2013-2014
- Emily Crowder: *Biodiversity and size effects in host-pathogen systems: identifying underlying mechanisms.*
- Sena McCrory: *Consequences of* n*utrient enrichment on host-pathogen dynamics*
- Carly Biedul: *Impact of sex ratios on cannibalism rates*
- Brittney Olivarez: *Parasite-host dynamics in Trobolium*

- Alyssa Thomas: *Genetic variation to parasite infection*
- Lauren Krannich: *Effects of parasites on intraguild predation dynamics*
- Allison Schaich: *Effects of parasites on priority effects*

2012-2013
- Preeya Bhavsar: *Carry-over and density effects on habitat selection*
- Jordan Bunch: *Trophic diversity and community resilience*
- Erica Harris, Mellon Mays fellow: *Immune priming and host-pathogen population dynamics*
- Mathew Moran : *Cannibalism, priority effects and dynamics of community assembly*
- Emily Crowder: *Biodiversity effects in host-pathogen systems: identifying underlying mechanisms.*
- Samantha Masaki: *Disentangling functional diversity*: *The role of* b*ody size vs. species diversity*
- Sena McCrory: *Effects of phenological shifts under different productivity regimes*
- Alexandra Santorum: *Genetic variation in life-history traits of Trobilium*

2011-2012
- Jordan Bunch: *Host-pathogen dynamics*
- Kenna Fowler: *Predation and host-pathogen dynamics*
- Erica Harris, Mellon Mays fellow: *Immune priming and host-pathogen population dynamics*
- Mathew Moran : *Seasonal dynamics of community assembly*
- Vinny Singh: *Size-structured interactions and predator-prey dynamics*
- Samantha Masaki: *Climate change and predator-prey interactions in seasonal communities*
- Mingyang Zhu: P*riority effects and species interactions*

2010-2011
- Mingyang Zhu: *Temperature and infection risk*
- Samantha Masaki: *Dragonfly traits and community assembly*
- Johanna Ohm: *Dragonfly traits and community assembly*
- Peter Silvers: *Carry-over effects and adult behavior*
- Gordon Ross, Century Scholar: *Parasite infection & cannibalistic behavior*
- Erin Mattson: *Ontogenetic niche shifts, juvenile bottlenecks and predator-prey dynamics*
- Samantha Berkey: *Intra-specific variation in a predatory Notonectid*
- Erika Harris, Mellon Mays Fellow: *Consequences of immune priming for host-parasite dynamics*
- Mingyang Zhu: *Host-parasite interaction along a temperature gradient*
- Michaela Reynolds: *Intra-specific variation & biodiversity loss*
- Ye-jin Kang, Rhodes Scholar*: Effects of and habitat quality on host invasion success*

2009-2010
- Lauren Krenek: *Stage-structured IGP and trait mediated indirect effects*
- Marianne Braun: *Size, mutual predation and trophic relationships*
- Boris Zhong: *Evolution of cannibalism*
- Sarah Nouri: *Stage structured priority effects and species coexistence*
- Vinny Singh: *Effects of climate change on species interactions*
- Stephanie Price: *Immune response in hosts with complex life cycles*
- Pablo Delclos, Century Scholar: *The interaction of stage structure and habitat complexity on predator-prey interactions*

2008-2009
- Ann Thomas: *Immune memory in invertebrates across metamorphosis*
- Lauren Krenek: *Adaptive significance of gill loss in damselfly larvae under different predation regimes*
- Whitney Parsons: *The influence of kin recognition and reproductive status on the propensity for cannibalism*
- Ye-jin Kang*: Effects of non-lethal parasites on host population dynamics*

Pre 2007

- Joanna Armstrong: *The interaction of intraspecific and interspecific predation in aquatic communities*. Funded by the MLBS NSF REU program.
- Gavin Ferris: *Identification of cues for conspecific recognition and behavioral consequences in the dragonfly Plathemis lydia*. Funded by the MLBS NSF REU program.
- Joel Adeba and Germain Kouamé (Ivory Coast nationals from Université de Cocody): *Ecology of the tadpoles of Kassina lamottei; Reproductive ontogeny of Phrynobatrachus* Carried out in Taï National Park, Ivory Coast, West Africa. Funded BIOTA West Africa

Selected student awards

Post docs:

- Don Abbott Award for best talk at ASN meeting (Toscano, 2018)
- Arnold & Mabel Beckman Postdoctoral Fellowship (Toscano 2016)

PhD students:

- American Society of Naturalist Student Research Award (Dibble 2012, Carter, 2018, Zou 2023, $2,000)
- British Ecological Society Small Grants Award (Zou 2023, £3,920)
- Best graduate student presentation, EEB, Rice University (Rasmussen 2013, van Allen 2014, Carter 2016, Clay 2017, Zou 2023, Yin 2025)
- Best graduate student paper, EEB, Rice University (van Allen 2012, Rasmussen 2014, Dibble 2015, Carter 2018, Clay 2019, Zou 2024)
- Best PhD Thesis, EEB, Rice University (van Allen 2014, Clay 2018, Zou 2024)
- Joe Davies Award for Excellence in Teaching, Rice University (Rasmussen, 2010, 2013 van Allen 2011, 2013 Dibble 2012, 2014, Carter 2016, Clay 2018, Zou 2020)
- ESA Disease Ecology Section Best Paper Award for 2020 (Clay)
- NSF Graduate Research Fellowship (Clay, 2014, Yin, 2021)
- NSF Graduate Research Fellowship Honorable Mention (Carter, 2016)
- NSF-DDIG (Rasmussen 2012, van Allen 2013, Clay 2016)
- American Society of Naturalist-Student Research Award, honorable mention (Rasmussen 2012)
- Conchologists of America Research Award (van Allen 2012)
- Sigma Xi Grant in Aid of Research (Van Allen 2010, Dibble 2010)
- Texas Herpetological Society (Rasmussen 2009, 2011, Carter 2015)
- Houston Rodeo and Livestock Fellowship (Carter, 2014)
- Lodieska Stockbridge Vaughn Fellowships, Rice University (2013 van Allen)
- Sam and Helen Worden Fellowship, Rice University (2013, Clay)
- Peter Savas Nelson Award, Rice University (Clay 2015)
- Best graduate student presentation, Society for Freshwater Biology (Rasmussen 2013)

Undergraduate students:

- Rhodes scholarship (Kang, 2010)
- Fullbright scholarship (Buissereth 2017)
- Udall Scholar Fellowships (honorable mention, McCrory, 2013)
- NSF-Graduate Research Fellowship (Delclos 2011, Harris 2014)
- Trailblazing Undergraduate Research Award, Ecological Society of America (Xiong, 2022)
- Federation of Houston Professional Women Educational Foundation (Zhu 2011)
- Mellon Mays Fellowship (Harris 2011- 2013)
- Clark P. Read Award of Excellence, Rice University (Zhang 2012)
- Distinction in Research and Creative Works Award (Zhong, 2013, Bhasvar 2014, Krannich 2015, Caroll 2022)
- Award of Excellence in Undergraduate Research, Rice University (Thomas 2009, Krenek 2010)
- Best student presentation, RURS, Rice University (Whitney 2009, Krenek 2010, McCrory 2014)

UNIVERSITY & DEPARTMENTAL SERVICES

University

- Rice University Childcare Working Group Committee (2023-present)
- Rice University Subcommittee on Laboratory Safety (2020-present)
- Rice University Committee on Research (2020-2023)
- Rice University Promotion & Tenure Committee (2019-2020)
- Rice TRIAD Faculty Mentor (2014-present)
- Rice SURF (Summer Undergraduate Research Fellow) mentor (2020-present)
- Faculty Associate, Duncan College (2009-present)
- University Committee on Fellowship Awards Member (2012-2016)
- IACUC committee (2015-2016)
- ELA (Rice Empowering Leadership Program) mentor (2014-2015)
- Divisional Advisor for Natural Sciences, Duncan College (2012-2015)
- Mellon Mays Fellow Mentor (2011-2013)
- Advance Program, Post Doc Discussion Forum Leader (2010)

Department

- Associate Chair, BioSciences Department (2016-2018)
- BioSciences Graduate Program Director (2014-2016, 2019)
- BioSciences Undergraduate Curriculum Committee (2018-present)
- BioSciences Faculty Search Committee (2025-present)
- BioSciences Awards committee (2022-present)
- BioSciences Safety and Responsible Conduct in Research Committee (2018-2025)
- BioSciences Faculty Mentor (2017-present)
- Graduate Student Advisory Committee Member (2014-present)
- Development Committee (2017-2018)
- BioSciences Chair Advisory Council (2017-2022)
- BioSciences EEB graduate Recruitment Committee member (2008-present)
- BioSciences EEB graduate Evaluation Committee member (2008-present)
- Chair of BioSciences search committee for tenure track open ranked EEB faculty position (2015)
- Chair of search committee for EEB senior faculty position (2013-2014)
- Biology BA & BS, Major advisor (2013-2016)
- Ecology & Evolutionary Biology BA & BS, Major advisor (2013)
- Chair of search committee for Huxley faculty position (2010-2011, 2014)
- Huxley faculty search committee member (2008, 2013)
- Search committee member for EEB Administrator position (2011)

PROFESSIONAL SERVICES

Editor:

- ***Editor-in-Chief***, *The American Naturalist* 2022-present
- Associate Editor for the *American Naturalist*; 2013 - 2022
- Associate Editor for the *Journal of Animal Ecology*; 2008- 2018

Committees & Boards

- Advisory Board Member for new journal *Biogeography* 2024-present
- Council member: The American Society of Naturalist (2022-present)
- Committee member "Eminent Ecologist Awards" of the Ecological Society of America, 2021-present
- Founding member of PEEER (Publishing for an Ethical & Equitable Environment in Research), https://peeer.net/ 2024-present

Organizer

- Special session: *Making good choices: Why and how to publish in the American Naturalist*, Asilomar 2025
- Discussion Leader, Gordon Conference: *Unifying Ecology Across* Scales 2018
- Director of American Society for Naturalists stand-alone Meeting, Asilmoar 2016
- Special session organizer: *Phenology, ontogeny, and the timing of species interactions: Building a temporally-explicit framework*, Annual meeting of the Ecological Society of America 2014, Sacramento, CA, USA (with L. Yang)
- National Institute of Mathematical and Biological Sciences (NIMBios) working group *"Population and community ecology consequences of intraspecific niche variation"* Co-PI with D. Bolnick and K. McCann
- Special session organizer: *Emergent impacts of size-structured interactions*, Annual meeting of the Ecological Society of America 2007, San Jose, USA (with P. Crumrine)

Evaluated tenure & promotion at other universities (5x, 2025, 3x 2024, 3x 2023, 1x 2021, 2x 2020, 2x 2019, 1x 2017)

External reviewer of university merit evaluation and salary adjustment process (U. Tulsa, 2023)

Science Judge: Served as student award judge to select Frost- Graduate student awards (Exceptional Promise Award & Best Student Paper) for Ecological Society of America.

Opponent: Served as opponent in a PhD defence at University of Umea, Sweden, and University of Toronto

PROFESSIONAL SOCIETIES

American Society of Naturalists (2004-present), Ecological Society of America (ESA) (2003-present), American Association for the Advancement of Science (AAAS)(2019-present)