

JOHN P. DELONG

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ACADEMIC POSITIONS

@ School of Biological Sciences, University of Nebraska, Lincoln, Nebraska

Director – Cedar Point Biological Station	2018 – present
Associate Professor	2017 – present
Assistant Professor	2012 – 2017

@ Dept. of Ecology and Evolutionary Biology, Yale University, New Haven, Connecticut

Postdoctoral associate	2009 – 2012
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EDUCATION

Ph.D. in Biology – University of New Mexico, Albuquerque, New Mexico 2005 – 2009

Advised by David T. Hanson and James H. Brown

M.S. in Biology – Utah State University, Logan, Utah 1997 – 1999

Advised by James A. Gessaman

B.A. in Environmental Science – University of Virginia, Charlottesville, Virginia 1989 – 1991

University of Maryland – Munich Campus, Munich, Germany 1987 – 1989

RESEARCH OVERVIEW

Publications: >110 peer-reviewed journal articles, book chapters, and stand-alone publications; h-index: 32

Areas of interest: predator-prey interactions, eco-evolutionary dynamics, evolution of thermal niches, body size evolution, trophic cascades, viruses in food webs, ecological energetics, human population dynamics

Major achievements: Inventor of Gillespie eco-evolutionary models (GEMs); developed supply-demand (SD) theory for body size evolution, enzyme-activated Arrhenius (EAAR) model, and allometric predator prey models; built FoRAGE database; co-discovered non-equilibrium evolutionary attractors (NEEAs) and predator-catalyzed viral growth; built CURE-like undergraduate courses in foraging and ecology and evolution.

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PEER-REVIEWED SCIENTIFIC PUBLICATIONS ([BACK TO CONTENTS](#))

(Note on superscripts: 1 = undergraduate researcher, 2 = graduate student, 3 = postdoc, 4 = working group)


120. **DeLong**, J.P. and C.E. Cressler. *In press*. Stochasticity directs adaptive evolution toward non-equilibrium evolutionary. *Ecology*. (Effort 50%)
119. Wszola, L.S.², Z.S. Feiner, C.J. Chizinski, J.B. Poletto, and J.P. **DeLong**. *Online early*. The life history of harvest: integrating social and ecological fisheries models. *Canadian Journal of Fisheries and Aquatic Sciences*. (10%)
118. **DeLong**, J.P. *In press*. The additive metabolic scaling law: An inertia-like reference state for metabolic scaling. *Evolutionary Ecology Research*. (Effort 100%)
117. **DeLong**, J.P. *Online early*. Pathways of density dependence and natural selection in modern humans. In: 'Human Evolutionary Demography', eds. O. Burger, R. Lee, and R. Sear. (Effort 100%)

2022

116. Uiterwaal, S.F.², I.T. Lagerstrom¹, S.R. Lyon¹, and J.P. **DeLong**. 2022. Data paper: FoRAGE (Functional Responses from Around the Globe in all Ecosystems) database: a compilation of functional responses for consumers and parasitoids. *Ecology*. 103:e3706. (Effort 40%)
115. Coblenz, K.E.³, A. Squires¹, S.F. Uiterwaal², and J.P. **DeLong**. 2022. Quantifying predator functional responses under field conditions reveals interactive effects of temperature and interference with sex and stage. *Journal of Animal Ecology*. 91:1431-1443. (Effort 15%)
114. Islam, Y., F.M. Shah, A. Guncan, J.P. **DeLong**, and X. Zhou. 2022. Functional response of *Harmonia axyridis* on the larvae *Spodoptera litura*: the combined effect of temperature and prey size. *Frontiers in Plant Science*. 13: 849574. (Effort 5%)
113. **DeLong**, J.P. and S.F. Uiterwaal². 2022. Predator functional responses and the biocontrol of aphids and mites. *Biocontrol*. 67:161-172. (Effort 50%)
112. Buba, Y.², **DeLong**, J.P., and Belmaker, J. 2022. Synthesizing global drivers of fish predator-prey interaction strength. *Fish and Fisheries*. 23: 376-391. (Effort 15%)
111. Grainger, T.N., Senthilnathan, A., Ke, P., Barbour, M.A., Jones, N.T., **DeLong**, J.P., Otto, S.P., O'Connor, M.I., Coblenz, K.E.³, Goel, N., Sakarchi, J., Szojka, M.C., Levine, J.M., and R.M. Germain⁴. 2022. An empiricist's guide to using ecological theory. *American Naturalist*. 199: 717206. (Effort 5%)
110. **DeLong**, J.P., M.A. Al-Sammak, Z.T. Al-Ameeli², D.D. Dunigan, K. Edwards, J.J. Fuhrmann, J.P. Gleghorn, A.O. Harrison², R.M. Moore², S.W. Polson, M.E. Salsbery², C.R. Schvarcz, G. Steward, J.L. Van Etten, K.E. Wommack⁴. 2021. Toward an integrative view of virus phenotypes. *Nature Reviews Microbiology*. 20:83-94. (Effort 60%)
109. **DeLong**, J.P. and K.E. Coblenz³. 2022. Prey diversity constrains the adaptive potential of predator foraging traits. *Oikos*. 2022:e08800. (Effort 75%)

2021

108. Herman, M., et al⁴. 2021. A unifying framework for understanding biological structures and functions across levels of biological organization. *Integrative and Comparative Biology*. 61: 2038-2047. (Effort 5%)
107. Al-Ameeli, Z.², M. Al-Sammak, J.P. **DeLong**, D. Dunigan, and J. Van Etten. 2021. Catalysis of chlorovirus production by the foraging of *Bursaria truncatella* on *Paramecia bursaria* containing endosymbiotic algae. *Microorganisms*. 9:2170. (Effort 35%)

106. Uiterwaal, S.F.², J.P. DeLong, and K. Geluso. 2021. *Anaxyrus woodhousii* (Woodhouse toad) predation. *Herpetological Review*. 52:604. (Effort 20%)
105. Pokharel, A.², S. Gardner, and J.P. DeLong. 2021. Assessing prey selection of Barn Owls (*Tyto alba*) in western Nebraska using pellet analysis. *Prairie Naturalist*. 53:27-35. (Effort 30%)
104. DeLong, J.P. 2021. *Predator Ecology: The Evolutionary Ecology of the Functional Response*. Oxford University Press. DOI: 10.1093/oso/9780192895509.001.0001. (Effort 100%) ****See book review [here](#).** 
103. Salsbery, M.E.², and J.P. DeLong. 2021. Thermal adaption in a host accompanied by phenotypic changes in an endosymbiont. *Evolution*. 75:2074–2084. (Effort 50%)
102. DeLong, J.P., S.F. Uiterwaal², and A.I. Dell. 2021. Trait-based variation in the foraging performance of individuals. *Frontiers in Ecology and Evolution* 9: 649542. (Effort 50%)
101. Squires, A.¹, C. Wilson¹, and J.P. DeLong. 2021. Assessing prey choice in Zebra Jumping Spiders using functional response expectations. *Food Webs* 28:e00199. (Effort 50%)
100. Coblentz, K.E.³, and J.P. DeLong. 2021. Estimating predator functional responses using the times between prey captures. *Ecology* 102:e03307. (Effort 30%) ****Featured in [Nebraska Today](#).**

2020

99. Luhring, T.M.³, and J.P. DeLong. 2020. Eco-evolutionary trophic cascades. *Proceedings of the Royal Society of London B* 287:20200526. (Effort 75%)
98. Uiterwaal, S.F.², and J.P. DeLong. 2020. Patterns in DNA detection half-lives enable quantification of dietary metabarcoding data. *Molecular Ecology Resources* 20:1723–1732. (Effort 10%)
97. DeLong, J.P. 2020. Detecting the signal of body mass evolution in the broad-scale architecture of food webs. *American Naturalist*. 196:443-453. (Effort 100%).
96. Coblentz, K.E.³ and J.P. DeLong. 2020. Predator-dependent functional responses alter the coexistence and indirect effects among prey that share a predator. *Oikos* 129:1404-1414. (Effort 10%)
95. DeLong, J.P. and S. Lyon¹. 2020. Temperature alters predator-prey cycles through diverse effects on underlying mechanisms. *PeerJ* 8:e9377. (Effort 75%)
94. Uiterwaal, S.F.² and J.P. DeLong. 2020. Functional responses are maximized at intermediate temperatures. *Ecology* 101:e02975. (Effort 50%) ****A top cited article in Ecology for 2020-2021**
93. Uiterwaal, S.F.², Lagerstrom, I.¹, Luhring, T.M.³, Salsbery, M.², and J.P. DeLong. 2020. Trade-offs between morphology and thermal niches mediate evolution in response to competing selective pressures. *Ecology and Evolution* 10:1368-1377. (Effort 30%)

2019

92. Boswell, M.E.¹ and J.P. DeLong. 2019. Gravid Tetragnathid spiders show an increased functional response. *Food Webs* 21:e00122. (Effort 40%)
91. Luhring, T.M.³, J.M. Vavra, C.E. Cressler, and J.P. DeLong. 2019. Phenotypically plastic responses to predation risk are temperature dependent. *Oecologia* 191:708-719. (Effort 20%)
90. Chelini, M.C.², J.P. DeLong, and E.A. Hebets. 2019. Ecophysiological determinants of sexual size dimorphism: integrating growth trajectories, environmental conditions and metabolic rates. *Oecologia* 191:61-71. (Effort 10%)
89. Uiterwaal, S.F.² and J.P. DeLong. 2019. Body condition and species identity help explain metabolic rate variation. *Ecological Entomology* 44: 659-664. (Effort 20%)

87. Fey, S.B., 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, and S. Clusella-Trullas⁴. 2019. Opportunities for behavioral rescue under rapid environmental change. *Global Change Biology* 25:3110-3120. (Effort 5%)
87. Shaffer, J.S.F. and **DeLong**, J.P. 2019. The effects of management practices on grassland birds—An introduction to North American Grasslands and the practices used to manage grasslands and grassland birds. Chapter A in *The Effects of Management Practices on Grassland Birds*, edited by D.H. Johnson, L.D. Igl, J.A. Shaffer, and J.P. **DeLong**. Professional Paper 1842–A, U.S. Department of the Interior, U.S. Geological Survey, Reston, Virginia. (Effort 20%)
86. Galic, N., A.G. Hindle, J.P. **DeLong**, K. Watanabe, V.E. Forbes, and C.L. Buck.⁴ 2019. Modeling genomes to phenomes to populations in a changing climate: the need for collaborative networks. *Ecological Modeling* 406:80-83. (Effort 15%)
85. Uiterwaal, S.F.², **DeLong**, J.P., and A. Dell. 2019. Behavioral mechanisms explain the arena size-dependence of space clearance rate estimates. *Behavioral Ecology* 30:483–489. (Effort 20%)
84. Dunigan, D.D., M. Al-Sammak, Z. Al-Ameeli², I.V. Agarkova, J.P. **DeLong**, and J.L. Van Etten. 2019. Chloroviruses lure hosts through long-distance chemical signaling. *Journal of Virology* 93: e01688-18. (Effort 25%) ** *Featured in [Virology blog](#), [TWiV](#), and [Nebraska Today](#).*
83. **DeLong**, J.P. and J.P. Gibert². 2019. Larger area facilitates the positive effect of niche complementarity on ecosystem function. *American Naturalist* 193:738-747. (Effort 75%)
82. **DeLong**, J.P. and J. Belmaker. 2019. Ecological pleiotropy and indirect effects alter the potential for evolutionary rescue. *Evolutionary Applications* 12:636-654. (Effort 80%)

2018

81. Salsbery, M.E.² and J.P. **DeLong**. 2018. The benefit of algae endosymbionts in *Paramecium bursaria* is temperature dependent. *Evolutionary Ecology Research* 19:669-678. (Effort 30%)
80. Burger, O. and J.P. **DeLong**. 2018. Energy flow and management. Pages 1828-1831 in: *The International Encyclopedia of Anthropology*, Volume IV. (Effort 25%)
79. Luhring, T.M.³, J.M. Vavra, C.E. Cressler, and J.P. **DeLong**. 2018. Predators modify the thermal dependence of life history trade-offs. *Ecology and Evolution* 8:8818-8830. (Effort 20%)
78. **DeLong**, J.P., J.P. Gibert², T.M. Luhring³, G. Bachman, B. Reed², A. Neyer², and K.L. Montooth⁴. 2018. Habitat, latitude and body mass influence the temperature dependence of metabolic rate. *Biology Letters* 14:20180442. (Effort 75%)
77. Ely, T.², C.W. Briggs, S.E. Hawks, G.S. Kaltenecker, D.L. Evans, F.J. Nicoletti, J.-F. Therrien, P.A. Napier, and J.P. **DeLong**. 2018. Morphological changes in American Kestrels (*Falco sparverius*) at continental migration sites. *Global Ecology and Conservation* 15:e00400. (Effort 20%)
76. Uiterwaal, S.F.¹ and J.P. **DeLong**. 2018. Multiple factors, including arena size, influence the functional responses of ladybird beetles. *Journal of Applied Ecology* 55:2429-2438. (Effort 50%)
75. **DeLong**, J.P. and T.M. Luhring³. 2018. Size-dependent predation and correlated life history traits alter eco-evolutionary dynamics and selection for faster individual growth. *Population Ecology* 60:9-20. (Effort 75%)
74. **DeLong**, J.P., Z. Al-Ameeli², S.R. Lyon¹, J.L. Van Etten, and D.D. Dunigan. 2018. Size dependent catalysis of chlorovirus growth by a messy feeding predator. *Microbial Ecology* 75:847-853. (Effort 50%)
73. Lyon, S.R.¹, C.A. Sjulín¹, K.M. Sullivan¹, and J.P. **DeLong**. 2018. Condition-dependent foraging in the wolf spider *Hogna baltimoriana*. *Food Webs* 14:5-8. (Effort 50%)

72. DeLong, J.P., T.C. Hanley, J.P. Gibert², L. Puth, and D. Post. 2018. Life history traits and functional processes generate multiple pathways to ecological stability. *Ecology* 99:5-12. (Effort 60%)

2017

71. Uiterwaal, S.¹, Mares C.¹, and J.P. DeLong. 2017. Body size, body size ratio, and prey type influence the functional response of damselfly nymphs. *Oecologia* 185:339-346. (Effort 40%) **** Designated 'Highlighted Student Research'**.
70. Gibert, J.P.², and J.P. DeLong. 2017. Phenotypic variation explains food web structural patterns. *Proceedings of the National Academy of Sciences of the USA* 42:11187–11192. (Effort 10%)
69. Luhning, T.M.³, and J.P. DeLong. 2107. Scaling from metabolism to population growth rate to understand how acclimation alters thermal performance. *Integrative and Comparative Biology* 57:103-111. (Effort 30%)
68. van Rijn, I., Buba, Y., DeLong, J.P., Kiflawi, M., and Belmaker, J. 2017. Large but uneven reduction in fish size across species in relation to changing sea temperatures. *Global Change Biology* 23: 3667–3674. (Effort 5%)
67. Buba, Y., van Rijn, I., Blowes, S., Sonin, O., Edelist, D., DeLong, J.P., and Belmaker, J. 2017. Remarkable size spectra stability in a marine system undergoing massive invasion. *Biology Letters* 13:20170159. (Effort 5%)
66. DeLong, J.P., J.P. Gibert², T.M. Luhning³, G. Bachman, B. Reed², A. Neyer², and K.L. Montooth⁴. 2017. The combined effects of kinetics and enzymes explain the temperature dependence of metabolic rate. *Ecology and Evolution* 7:3940–3950. (Effort 50%)
65. Gibert, J.P.², R.L. Allen¹, R.J. Hruska III¹, and J.P. DeLong. 2017. Ecological consequences of environmentally induced phenotypic changes in a mutualistic species. *Ecology Letters* 20:997-1003. (Effort 20%)
64. Luhning, T.M.³, J.P. DeLong, and R. Semlitsch. 2017. Stoichiometry and life-history interact to determine the magnitude of cross-ecosystem element and biomass fluxes. *Frontiers in Microbiology* 8:814. (Effort 10%)
63. DeLong, J.P. 2017. Ecological pleiotropy suppresses trait-mediated dynamics generated by an optimized trait. *American Naturalist* 189:592-597. (Effort 100%)
62. DeLong, J.P., C.E. Brassil, E.K. Erickson¹, V.E. Forbes, E.N. Moriyama, and W.R. Riekhof. 2017. Breaking the temperature-size rule with dynamic thermal reaction norms and body size oscillations. *Evolutionary Ecology Research* 18:293-303. (Effort 50%)

2016

61. DeLong, J.P., Z. Al-Ameeli², G. Duncan, J.L. Van Etten, and D.D. Dunigan. 2016. Predators catalyze Chlorovirus growth by foraging on the symbiotic hosts of zoochlorellae. *Proceedings of the National Academy of Sciences of the USA* 113:13780-13784. (Effort 40%) **** Featured in [Nebraska Today](#), [NSF](#), [Bacteriofiles](#), and [TWIV](#).**
60. Luhning, T.M.³, and J.P. DeLong. 2016. Predation changes the shape of thermal performance curves. *Current Zoology* 62:501-505. (Effort 50%)
59. Gibert, J.P.², M.C. Chelini², M.F. Rosenthal², and J.P. DeLong. 2016. Crossing regimes in the temperature dependence of animal movement and its ecological consequences. *Global Change Biology* 22:1722-1736. (Effort 10%) **** Featured in [Nature Climate Change](#) [here](#) and [UNL Today](#) [here](#).**
58. Burger, O. and J.P. DeLong. 2016. What if fertility decline isn't permanent? The need for an evolutionarily-informed approach to low and very low fertility. *Philosophical Transactions of the Royal Society* 371:20150157. (Effort 25%)
57. Kalinoski, R.M.¹, and J.P. DeLong. 2016. Beyond body size: how prey traits improve predictions of functional response parameters. *Oecologia* 180:543–550. (Effort 50%)

56. **DeLong**, J.P. and J.P. Gibert². 2016. Gillespie eco-evolutionary models (GEMs) reveal the role of variance in eco-evolutionary dynamics. *Ecology and Evolution* 6:935-945. (Effort 80%)
55. **DeLong**, J.P. and seven others⁴. 2016. How fast is fast? Eco-evolutionary dynamics and rates of change in populations and phenotypes. *Ecology and Evolution* 6:573-581. (Effort 50%) ** *Featured in UNL Today* [here](#).

2015

54. **DeLong**, J.P. and M. Walsh. 2015. The interplay between resource supply and demand determines the influence of predation on prey body size. *Canadian Journal of Fisheries and Aquatic Sciences* 72:1-7. (Effort 85%)
53. Gibert, J.P.², A.I. Dell, J.P. **DeLong**, and S. Pawar. 2015. Scaling up trait variation from individuals to ecosystems. *Advances in Ecological Research* 52:45-64. (Effort 10%)
52. Gibert, J.P.² and J.P. **DeLong**. 2015. Individual variation decreases interference competition among predators but increases species persistence. *Advances in Ecological Research* 52:1-17. (Effort 20%)
51. **DeLong**, J.P. and O. Burger. 2015. Socio-economic instability and the scaling of energy use with population size in humans. *PLoS One* 10: e0130547. (Effort 60%) ** *Featured in UNL Today* [here](#).
50. **DeLong**, J.P., and ten others⁴. 2015. The body size dependence of trophic cascades. *American Naturalist* 185:354-366. (Effort 75%) ** *Featured in UNL Today* [here](#).

2014

49. Novich, R.¹, E.K. Erickson¹, R.M. Kalinowski¹, and J.P. **DeLong**. 2014. The temperature-independence of interaction strength in a sit-and-wait predator. *Ecosphere* 5(1):137. (Effort 40%)
48. La Sorte, F., D. Fink, W.M. Hochachka, J.P. **DeLong**, and S. Kelling. 2014. Spring phenology of ecological productivity contributes to the use of looped migration-strategies by birds. *Proceedings of the Royal Society of London B* 1793:20140984. (Effort 5%)
47. Gibert, J.P.² and J.P. **DeLong**. 2014. Temperature alters predator prey size scalings. *Biology Letters* 10:20140473. (Effort 20%)
46. **DeLong**, J.P. 2014. The body size dependence of mutual interference. *Biology Letters* 10:20140261. (Effort 100%)
45. Gilbert, B., T.D. Tunney, K.S. McCann, J.P. **DeLong**, and twelve others⁴. 2014. A bioenergetic framework for the temperature dependence of trophic interaction strength. *Ecology Letters* 17:902-914. (Effort 5%)
44. Vasseur, D.A., J.P. **DeLong**, and seven others⁴. 2014. Increased temperature variation poses a greater risk to species than climate warming. *Proceedings of the Royal Society of London B* 281:20143612. (Effort 5%)
43. **DeLong**, J.P., T.C. Hanley, and D.A. Vasseur. 2014. Predator-prey dynamics and the plasticity of predator body size. *Functional Ecology* 28:487-493. (Effort 85%)
42. **DeLong**, J.P., T.C. Hanley, and D.A. Vasseur. 2014. Competition and the density dependence of metabolic rates. *Journal of Animal Ecology* 83:51-58. (Effort 85%)

2013

41. **DeLong**, J.P. and T.C. Hanley. 2013. The rate-size trade-off structures intraspecific variation in *Daphnia ambigua* life history parameters. *PLoS One* 8:e81024. (Effort 65%)
40. **DeLong**, J.P. and D.A. Vasseur. 2013. Linked exploitation and interference competition drives the variable behavior of a classic predator-prey system. *Oikos* 122:1393-1400. (Effort 90%) ** *Designated 'Editor's Choice'*. ** *Featured in predator-prey blog* [here](#).

39. La Sorte, F., D. Fink, W.M. Hochachka, J.P. **DeLong**, and S. Kelling. 2013. Population-level scaling of avian migration speed with body size and migration distance for powered fliers. *Ecology* 94:1839-1847. (Effort 5%)
38. **DeLong**, J.P., O. Burger, and M.J. Hamilton. 2013. The UN medium population projection is an unstable equilibrium. *Frontiers in Ecology and the Environment* 11:65-66. (Effort 85%)
37. **DeLong**, J.P., N.S. Cox, S.W. Cox, Z. M. Hurst, and J.P. Smith. 2013. DNA sequencing reveals patterns of prey selection in migrating Sharp-shinned Hawks. *Condor* 115:40-46. (Effort 80%)

2012 (arrival at UNL)

36. **DeLong**, J.P. and D.A. Vasseur. 2012. Size-density scaling in protists and the links among consumer-resource interaction parameters. *Journal of Animal Ecology* 81:1193-1201. (Effort 90%)
35. **DeLong**, J.P. 2012. Experimental demonstration of a rate-size trade-off governing body size optimization. *Evolutionary Ecology Research* 14:343-352. (Effort 100%)
34. Walsh, M.R., J.P. **DeLong**, T.C. Hanley, and D.M. Post. 2012. A cascade of evolutionary change alters consumer-resource dynamics and ecosystem function. *Proceedings of the Royal Society of London B* 279:3184-3192. (Effort 5%) **** News focus in [Science](#) and [Science Daily](#).**
33. **DeLong**, J.P. and D.A. Vasseur. 2012. A dynamic explanation of size-density scaling in carnivores. *Ecology* 93:470-476. (Effort 90%)
32. **DeLong**, J.P. and D.A. Vasseur. 2012. Coexistence via resource partitioning fails to generate an increase in function. *PLoS One* 7:e30081. (Effort 90%)
31. Smith, J.P., J. P. **DeLong**, L.L. Leppert, S.L. Stock, G.S. Kaltenecker, and J.D. Carlisle. 2012. Morphometric variation in Flammulated Owls captured during autumn migration in the western United States. *Journal of Raptor Research* 43:108-119. (Effort 20%)

2011

30. **DeLong**, J.P. and D.T. Hanson. 2011. Warming alters density dependence, energetic fluxes, and population size in a model algae. *Ecological Complexity* 8:320-325. (Effort 85%)
29. Burger, O., J. P. **DeLong**, and M.J. Hamilton. 2011. Industrial energy use and the human life history. *Scientific Reports* 1:56. (Effort 25%)
28. **DeLong**, J.P. 2011. Energetic inequivalence in eusocial insect colonies. *Biology Letters* 7(4):611-614. (Effort 100%)
27. **DeLong**, J.P. and D.A. Vasseur. 2011. Mutual interference is common and mostly intermediate in magnitude. *BMC Ecology* 11:1. (Effort 75%)
26. Brown, J.H., W.R. Burnside, A.D. Davidson, J.P. **DeLong**, W.C. Dunn, M.J. Hamilton, J.C. Nekola, J.G. Okie, N. Mercado-Silva, W.H. Woodruff, and W. Zuo. 2011. Energetic limits to economic growth *BioScience* 61:19-26. **** Must read at Faculty of 1000.** (Effort 5%)
25. Anderson-Teixeira, K.J., J.P. **DeLong**, A.M. Fox, D.A. Brese, and M.E. Litvak. 2011. Differential responses of production and respiration to temperature and moisture drive the carbon balance across a climatic gradient in New Mexico. *Global Change Biology* 17:410-424. (Effort 25%)

2010

24. **DeLong**, J.P., J.G. Okie, M.E. Moses, R.M. Sibly, and J.H. Brown. 2010. Shifts in metabolic scaling, production, and efficiency across major evolutionary transitions of life. *Proceedings of the National Academy of Sciences of the USA* 107:12941-12945. (Effort 75%)

23. **DeLong**, J.P., O. Burger, and M.J. Hamilton. 2010. Current demographics suggest future energy supplies will be inadequate to slow human population growth. *PLoS One* 5(10):e13206. **** Recommended at Faculty of 1000.** (Effort 75%)
22. **DeLong**, J.P. 2010. Sharp-shinned Hawk. *In* The Raptors of New Mexico, edited by J.-L. Cartron. University of New Mexico Press.
21. **DeLong**, J.P. 2010. Northern Saw-whet Owl. *In* The Raptors of New Mexico, edited by J.-L. Cartron. University of New Mexico Press.

2009

20. Stahlecker, D.W., D.G. Mikesic, J. White, S. Shaffer, J.P. **DeLong**, M. Blakemore, and C. Blakemore. 2009. Prey remains in nests of four corners Golden Eagles, 1998–2008. *Western Birds* 40:301-306. (Effort 5%)
19. Hamilton, M.J., O. Burger, J.P. **DeLong**, R.S. Walker, M.E. Moses, and J.H. Brown. 2009. Population stability, cooperation, and the invasibility of the human species. *Proceedings of the National Academy of Sciences of the USA* 106(30):12255-12260. (Effort 15%)
18. **DeLong**, J.P. and D.T. Hanson. 2009. Metabolic rate links density to demography in *Tetrahymena pyriformis*. *The ISME Journal* 3:1396-1401. (Effort 90%)
17. **DeLong**, J.P. and D.T. Hanson. 2009. Density-dependent individual and population-level metabolic rates in a suite of single-celled eukaryotes. *The Open Biology Journal* 2:32-37. (Effort 85%)

2008 and before

16. **DeLong**, J.P. 2008. The maximum power principle predicts the outcomes of two-species competition experiments. *Oikos* 117:1329-1336. (Effort 100%)
15. Williams, S.O., III, J.P. **DeLong**, and W.H. Howe. 2007. Northward range expansion by the Short-tailed Hawk (*Buteo brachyurus*), with first records for New Mexico, USA and Chihuahua, Mexico. *Western Birds* 38:2-10. (Effort 25%)
14. **DeLong**, J.P. 2006. Pre-migratory fattening and mass gain in Flammulated Owls in central New Mexico. *Wilson Journal of Ornithology* 118:187-193. (Effort 100%)
13. **DeLong**, J.P., and S.O. Williams, III. 2006. Status report and biological review of the Gray Vireo in New Mexico. New Mexico Game and Fish Department, Santa Fe, NM. 32 pp.
12. **DeLong**, J.P., S.W. Cox, and N.S. Cox. 2005. A comparison of avian use of high- and low-elevation sites during autumn migration in central New Mexico. *Journal of Field Ornithology* 76:326-333. (Effort 75%)
11. Merola-Zwartjes, M. and J.P. **DeLong**. 2005. Avian species assemblages on New Mexico golf courses: surrogate riparian habitat for birds? *Wildlife Society Bulletin* 33:1-13. (Effort 50%)
10. **DeLong**, J.P., T.D. Meehan, and R.B. Smith. 2005. Investigating fall movements of hatch-year Flammulated Owls (*Otus flammeolus*) in central New Mexico using stable hydrogen isotopes. *Journal of Raptor Research* 39:19-25. (Effort 75%)
9. **DeLong**, J.P. and S.M. Fettig. 2005. An unusual record of American Coot (*Fulica americana*) in the Manzano Mountains. *NMOS Bulletin* 33:36-38. (Effort 90%)
8. **DeLong**, J.P., and K. Steenhof. 2004. Effects of management practices on grassland birds: Prairie Falcon. Northern Prairie Wildlife Research Center, Jamestown, ND. 25 pp.
7. **DeLong**, J.P. 2004. Effects of management practices on grassland birds: Golden Eagle. Northern Prairie Wildlife Research Center, Jamestown, ND. 22 pp.
6. **DeLong**, J.P. 2004. Age determination and preformative molt in hatch-year Flammulated Owls during the fall. *North American Bird Bander* 29:111-115. (Effort 100%)

5. **DeLong**, J.P. and S.W. Hoffman. 2004. Fat stores of migrant Sharp-shinned and Cooper's hawks in New Mexico. *Journal of Raptor Research* 38:163-168. (Effort 85%)
4. **DeLong**, J.P. and J.A. Gessaman. 2001. A comparison of non-invasive techniques for estimating total body fat in Sharp-shinned and Cooper's hawks. *Journal of Field Ornithology* 72:349-364. (Effort 85%)
3. **DeLong**, J.P. 2000. HawkWatch International raptor conservation program: issues and priorities. HawkWatch International, Inc. Salt Lake City, UT. 90 pp.
2. **DeLong**, J.P. and S.W. Hoffman. 1999. Differential autumn migration of Sharp-shinned and Cooper's hawks in western North America. *Condor* 101:674-678. (Effort 75%)
1. Stahlecker, D.W., J.P. **DeLong**, and J. Jewell. 1998. Breeding birds of the Rio Chama Wildlife and Fishing Area, Rio Arriba County, New Mexico. *NMOS Bulletin* 26:75-92. (Effort 10%)

ARTICLES IN REVIEW OR PREPARATION

- Coblentz, K.E. and J.P. **DeLong**. *In review*. Ecological boundaries constrain viable eco-evolutionary pathways. (Effort 20%)
- Pokharel, A., P. Napier, and J.P. **DeLong**. *In prep*. Road food: Identification of Cooper's hawk (*Accipiter cooperii*) and sharp-shinned hawk (*Accipiter striatus*) prey during fall migration using DNA barcoding.
- Gibert, J.P.², and J.P. **DeLong**. *In prep*. The joint effect of body size, intraspecific variation and their change with temperature on a predator-prey interaction. (Effort 10%)
- Hanley, T., L. Puth, J.P. **DeLong**, D. Post. *In prep*. Effects of intraspecific diversity in a consumer on consumer-resource dynamics and ecosystem function. (Effort 15%)
- DeLong**, J.P., M.I. O'Connor, V. Savage, T.M. Luhring³, C.-E. Schaum, and M.W. Sears. *In prep*. Beyond individual, population, and community: considering information, cell number, and energy flux as fundamental elements of life across scales. (Effort 50%)
- Shogren, F., E. Hebets, and J.P. **DeLong**. *In prep*. Redundant multi-modal predation risk information alters foraging behavior. (Effort 50%)
- DeLong**, J.P., S.F. Uiterwaal, and A. Magallanes. *In revision*. Temperature has a unimodal effect on the functional response of wolf spiders. (Effort 60%)

GRANTS AND AWARDS [\(BACK TO CONTENTS\)](#)

Active Grants

- Regular Program Grant* – Eco-evolutionary consequences of an ongoing invasion by a key herbivore in temperate reefs. US-Israel Binational Science Foundation, 10/01/2022-9/30/2026, \$266,000 (Co-PI with Dr. Belmaker, Tel-Aviv University).
- UNL Layman Award* – Understanding the ecological implications of virovory, 08/01/2022 - 07/31/2023, \$10,000 (PI with co-PIs Dunigan and Van Etten).
- NSF EAGER* – A Predictive framework of metabolism as an engine of functional environmental responses across levels of biological organization, 08/01/2018 - 07/31/2020 (currently on NCE), \$300,000 (Co-PI with Dr. Montooth).
- RII Track-2 FEC EPSCOR* – An Experimental and Analytical Framework for Genome to Phenome Connections in Viruses of Microbes. National Science Foundation, 8/1/2017-7/31/2021, \$592,340 to NE PIs (NE Co-PI with Drs. Van Etten and Dunigan).
- Scholar Award in Studying Complex Systems* – Understanding the Consequences of Body Size Evolution in Ecological Communities. James S. McDonnell Foundation, 10/01/2016-9/30/2022, \$450,000 (PI).

Past Grants

- Cooper Foundation* – Leveraging the Motus network to generate research and education collaborations at Cedar Point, 07/01/2021 - 07/31/2022, \$15,000 (PI).
- Regular Program Grant* – Integrating the effects of warming and body size evolution on marine size spectra. US-Israel Binational Science Foundation, 10/01/2015-9/30/2020, \$180,000 (Co-PI with Dr. Belmaker, Tel-Aviv University).
- Doctoral Dissertation Improvement Grant* (for Jean-Philippe Gibert) – The role of individual variation on predator-prey interactions and its joint effect with environmental temperature. National Science Foundation, 2015, \$17,285.
- Interdisciplinary Research Grant* – An interdisciplinary investigation into the causes and consequence of the temperature-size rule. Univ. of Nebraska Research Council, 2012, \$20,000.

Awards and other recognitions

- T.O. Haas Award for excellence in research & service* – Univ. of Nebraska – Lincoln, School of Biological Sciences, 2021.
- T.O. Haas Award for excellence in research* – Univ. of Nebraska – Lincoln, School of Biological Sciences, 2017.
- Certificate of Recognition for Contribution to Students* – Univ. of Nebraska Parents Association. 2015, 2017.
- Elected chair* – Gordon Research Conference (Unifying Ecology Across Scales) – Elected 2018, vice-chair for 2020 conference, chair for 2022 (now slated for 2022/2024).

TEACHING EXPERIENCE ([BACK TO CONTENTS](#))

Predator Ecology – BIOS 453/853 – University of Nebraska – Lincoln. Instructor and developer of advanced ecology course on the ecology and evolution of predator-prey interactions. The course strives to generate a ‘mathematical naturalist’ view of the world, wherein students can both understand the details of nature and abstract those details to general concepts. The course is built around an independent research project, which students conceive, design, implement, and present as a paper and in an end-of-course symposium. Typically, one of these projects per course is high enough quality for publication, resulting in several Predator Ecology students getting their first publications via their course project. The course also employs a mix of lecture, in-class experiments, readings from the primary literature, mathematical derivations, curve-fitting techniques, and using Matlab to solve ordinary differential equations. Fall 2013, 2014, 2015 (on UNL campus), and Summer 2016, 2017, 2018, 2019, 2021 (at Cedar Point Biological Station).

Ecology and Evolution – BIOS 207 – University of Nebraska – Lincoln. Instructor for required course in biology major covering broad areas in ecology and evolution, with lab. Renovated whole course from lecture-based toward interactive, student-centered learning. Innovated new approaches for using clickers, peer-instruction, and figure-based teaching methods. Spring 2013, 2014, 2015, 2016, 2017 (on campus), and Summer 2015 (at Cedar Point Biological Station).

Ecology and Evolution – BIOS 207 LABS – University of Nebraska – Lincoln. Instructor for labs in Spring 2018, 2019. Conceived, designed, and implemented a new model for running large enrollment *Ecology and Evolution* labs. Previous lab model was based on traditional, canned activities. The new lab focuses on independent projects with a strong student-centered, student-responsibility philosophy. Implemented as a sequence of student led skill development, question formation, and project implementation benchmarks. The lab also completely overhauled the role of the lab TA, allowing them to become mentors to active researchers as opposed to implementers of standardized activities. Read about the goals and implementation [here](#).

Regulation of the Global Human Population – UHON 395 – University of Nebraska – Lincoln. Conceived, developed, and implemented a new upper-level honors course on the processes that regulate human populations. The course is student-centered and focused on building a dynamic matrix model to predict the size of a particular country through the end of the century. Students also focus on developing their own interdisciplinary view on how life histories and demography are expected to change in their country, arising from student-led discussions of the literature. The course begins with foundational lectures on modeling and the roles of energy, culture, economics, and water on fertility and mortality patterns, and then eases into model development. Fall 2016, 2019, Spring 2018, 2021, 2022.

Controversies in Ecology – University of Zurich – Zurich, Switzerland. Co-instructor of one-week graduate course focused on understanding the nature and source of disagreements in the field of ecology. Fall 2018, 2020.

Biology Learning Community Freshman Seminar – BIOS 191 – University of Nebraska – Lincoln. Instructor of course designed to expose new college students to the range of biological research occurring at UNL. Fall 2017, 2019.

Big Questions in Life Sciences Research – LIFE 891 – University of Nebraska – Lincoln. Guest lecturer on eco-evolutionary dynamics. Fall 2015, 2016, 2017.s

Principles of Ecology – Biology 310L – University of New Mexico. Developed and refined laboratory exercises, wrote and published a new on-line lab manual, instructed labs (including field, analytical, modeling, and experimental projects), delivered lectures (five 1.25-hour lectures), and graded assignments (papers, presentations, and analytical exercises). Fall 2005, 2006, 2007.

Biology for Health Sciences Majors – Biology 124L – University of New Mexico. Prepared and instructed labs, wrote and graded homework assignments and tests. Spring 2006, 2007.

Introductory Biology – Biology 201L – Utah State University. Prepared and instructed laboratory course. Fall 1998, Spring 1999.

Field skills training. Trained wildlife field crews in techniques for trapping, handling, and processing methods for raptors and owls, and general outdoor skills, HawkWatch International, eight seasons, 1993 through 2003.

OUTREACH/ENGAGEMENT EXPERIENCE

Sunday with a Scientist: Predators! – Morrill Hall – University of Nebraska – Lincoln. Organized a multi-activity outreach event about predators and foraging for kids and adults involving museum scavenger hunts, optimal foraging games, owl pellet dissections, viewing microscopic predators, and radio-controlled predator-prey interactions. Developed new activities involving data collection and visualization for participants. Fall 2016.

Cub Scout Night at the Museum – Morrill Hall – University of Nebraska – Lincoln. Developed and implemented a predator-prey scavenger hunt for elementary school kids as part of a larger museum event. The activity focused on discovering one of the advantages for predators to hunt in packs. Fall 2014, 2017.

Bird identification seminars. Delivered for local Audubon club, wildlife festivals, and continuing education classes.

PREVIOUS EMPLOYMENT HISTORY

<i>Research assistant</i> , Department of Biology, University of New Mexico	2008 – 2009
<i>Teaching assistant</i> , Department of Biology, University of New Mexico	2005 – 2007
<i>Environmental consultant</i> , Eagle Environmental, Inc.	1998 – 2008
<i>Teaching assistant</i> , Department of Biology, Utah State University	1998 – 1999
<i>Seasonal field ecologist</i> , The Nature Conservancy, USDA Rocky Mountain Research Station, HawkWatch International, Eagle Environmental, Washington State University, Colorado State University, National Park Service, Galea Wildlife Consultants	1991 – 2003

INVITED PRESENTATIONS ([BACK TO CONTENTS](#))

The Unification of Ecology is Dead: Long Live the Unification of Ecology. Presented at:

Gordon Research Conference on Unifying Scales in Ecology, Manchester, NH, 2022.

Some explorations of the evolution of functional responses. Presented at

International Initiative for Theoretical Ecology, [virtual](#), May 2022.

Modeling the tangled bank: eco-evolutionary dynamics in multi-species, multi-trait, and non-equilibrium systems. Presented at

University of Nebraska, Math Biology seminar, Lincoln, NE, 2021.

Rutgers University, Camden, NJ, 2021.

Cornell University, Ithaca, NY, 2019.

Wichita State University, Wichita, KS, 2019.

KEYNOTE: Climate change and scaling up across levels of organization with evolution. *G2P2POP RCN workshop at the University of Minnesota, St. Paul, MN, 2019.*

How body size structure arises from ‘being the right size’. Presented at

University of Minnesota, St. Paul, MN, 2018

EAWAG, Zurich, CH, 2018

University of Zurich, Zurich, CH, 2018

Gordon Research Conference on Unifying Scales in Ecology, Biddeford, ME, 2018.

Eco-evolutionary dynamics and the evolution of body size.

NGRREC, Alton, IL, March 2018.

University of South Dakota, Vermillion, SD, April 2017.

P&T seminar, University of Nebraska, SBS seminar series, Lincoln, NE, October 2016.

Re-imagining thermal performance curves. Case Western Reserve U, Cleveland, OH, November 2017.

Energy and the regulation of the global human population. *SSHA annual meeting*, Chicago, IL, November 2016.

Supply, demand, and the optimization of body size. Tel Aviv U, Tel AVIV, Israel, March 2016.

Supply, demand, and the optimization of body size. P&T seminar, U of Nebraska, *SBS seminar series*, Lincoln, NE, November 2015.

IGNITE: Allometric population models as mechanistic predictors of macro-ecological patterns. *ESA Annual Meeting, Baltimore, MD, 2015.*

Genetic diversity and stability: a case study in fitting ordinary differential equations. Mathbio seminar series, U of Nebraska, March 2015.

The supply demand model of body size evolution. Presented at

Kansas State University, Manhattan, KS, November 2014.

American Fisheries Society annual meeting, Quebec City, Canada, August 2014.

Biology seminar series, U of Oklahoma, October 2012.

EEB seminar series, U of Nebraska, October 2012.

The body size dependence of trophic cascades. U of Kent, England, November 2013.

Understanding scaling patterns from consumer resource interactions. Symposium: “From energetics to macroecology: carnivore responses to environmental change”, Zoological Society of London, London, England, November 2013.

The body size dependence of trophic cascades. *EEB seminar series*, U of Nebraska – Lincoln, September 2013.

On the origin of interference in consumer-resource interactions. Mathbio seminar series, U of Nebraska, April 2013.

Metabolism and anthropogenic stressors – an overview. *Gordon Research Seminar on Metabolic Basis of Ecology*, Biddeford, ME, 2012.

CONTRIBUTED PRESENTATIONS

Talks

Eco-evolutionary trophic cascades. *ESA Annual Meeting, Louisville, KY, 2019.*

Ecological pleiotropy, trait variation, and the potential for evolutionary rescue of imperiled prey. *ESA Annual Meeting, Portland, OR, 2017.*

DNA sequencing (barcoding) reveals prey selection in migratory raptors. *RRF Annual Meeting, Sacramento, CA, 2015.*

The near convergence of ecological and evolutionary time. *ESA Annual Meeting, Baltimore, MD, 2015.*

The near convergence of ecological and evolutionary time. *Joint Aquatic Sciences Meeting, Portland, OR, 2014.*

Understanding the temperature-size rule with the supply-demand model of body size evolution. *ESA Annual Meeting, Minneapolis, MN, 2013.*

Linked exploitation and interference competition drives the variable behavior of a classic predator-prey system. *ESA Annual Meeting, Portland, OR, 2012.*

A mechanistic explanation of size density scaling in consumers. *ESA Annual Meeting, Austin, TX, 2011.*

Mutual interference is common and mostly intermediate in magnitude. *ESA Annual Meeting, Pittsburgh, PA, 2010.*

A comparison of avian use of high- and low-elevation sites during autumn migration in central New Mexico. *NMOS Annual Meeting, Albuquerque, NM, 2005.*

Foraging index and fat reserves in autumn-migrant accipiters in central New Mexico. *COS Annual Meeting, Albuquerque, NM, 2001.*

Fat reserves in wintering Bohemian Waxwings. *COS Annual Meeting, Riverside, CA, 2000.*

Variation in fat reserves of fall-migrant Sharp-shinned (*Accipiter striatus*) and Cooper's Hawks (*A. cooperii*) in central New Mexico. *RRF Annual Meeting, La Paz, MX, 1999.*

Non-invasive techniques for estimating body fat in Sharp-shinned (*Accipiter striatus*) and Cooper's Hawks (*A. cooperii*). *RRF Annual Meeting, La Paz, MX, 1999.*

Differential migration in Sharp-shinned and Cooper's Hawks in central New Mexico. *RRF Annual Meeting, Ogden, UT, 1998.*

Posters

The combined effects of reactant kinetics and enzyme stability explain the temperature dependence of metabolic rates. *Gordon Research Conference on Unifying Scales in Ecology, Biddeford, ME, 2016.*

- Gillespie eco-evolutionary models (GEMs). *Gordon Research Conference on Predator-prey interactions, Ventura, CA, 2016.*
- Dynamic temperature-size patterns in *Tetrahymena*. *Gordon Research Conference on Unifying Scales in Ecology, Biddeford, ME, 2014.*
- Predicting scaling patterns from dynamic consumer-resource models. *Gordon Research Conference on The Metabolic Basis of Ecology and Evolution, Biddeford, ME, 2012.*
- Shifts in metabolic scaling, production, and efficiency across major evolutionary transitions of life. *Gordon Research Conference on The Metabolic Basis of Ecology and Evolution, Biddeford, ME, 2010, and the ESA Annual Meeting, Albuquerque, NM, 2009.*
- Density-dependent individual and population-level metabolic rates in a suite of single-celled eukaryotes. *Gordon Research Conference on The Metabolic Basis of Ecology, Biddeford, ME, 2008.*

[SERVICE \(BACK TO CONTENTS\)](#)

As Director of Cedar Point Biological Station

Station management and care

- Managed external Academic Program Review of the station
- Streamlined and updated course listing, student fee payments and scholarships, invoicing procedures
- Acquired funds for roof repair on five buildings, ADA compliance, and window/door upgrades
- Developed and implemented COVID-19 mitigation plans to safely open the field station for 2020 & 2021
- Worked to catch up on an extensive maintenance backlog
- Re-established a biannual station user group meeting
- Developed and obtained buy-in for a station/college course cancellation and instructor salary policy

Development of community resources

- Acquired funds to install a Motus station with node network
- Installed suction trap to generate public database for monitoring aerial insects

Creating student opportunities and outreach

- Developed and initiated a growing experiential learning and working program called *Cedar Point Works*
- Initiated a biannual newsletter for the station, written four installments
- Built collaboration with Dept. of Entomology to create insect science internships
- Expanded course offerings and student recruitment efforts
- Created and implemented an annual Graduate Student Writing Retreat at the station

UNL School of Biological Sciences

- SBS Promotion and Tenure Committee (Fall 2021-present)
- SBS Executive Committee (Fall 2019-present)
- Research and seminar committee (Spring 2019)
- Peer review of teaching committee (Fall 2017 – Spring 2018)
- Faculty search committee for SBS Director (Fall 2016 – Spring 2017)
- Faculty learning lunch presentation, “Reimagining the clicker” (Spring 2017)
- SBS ad hoc Vision committee (Spring 2017)
- Faculty search committee for Vertebrate Ecologist in School of Natural Resources (SNR) (Spring 2016)
- Faculty search committee for SBS Director (Fall 2015 – Spring 2016)
- SBS Special Funds committee, Chair (Fall 2014 – Spring 2015), Member (Fall 2015 – Spring 2016)
- SBS Seminar Committee (Fall 2014 – Spring 2016)
- Faculty search committee for Infectious Disease Biology (Fall 2014 – Spring 2015)
- SBS Curriculum Committee (Fall 2013 – Spring 2015)
- Task force on graduate research emphasis groups (GREGs) (Fall 2012 – Spring 2013)
- Population ecology journal club organizer (Spring 2013 – present)

UNL (outside of SBS)

- Reviewer for 2020 Collaboration Initiative proposals

Nebraska Center for Virology transition committee (Spring 2019-Spring 2020)

Outstanding Research and Creativity Award committee, NU system (Fall 2018-Spring 2021)

Manuscript reviewing

American Midland Naturalist, American Naturalist, Behavioral Processes, Biology Letters, Biological Conservation, Biological Reviews, BioScience, Canadian Journal of Fisheries and Aquatic Sciences, Communications Biology, Condor, Ecological Complexity, Ecological Entomology, Ecological Modeling, Ecological Monographs, Ecology, Ecology Letters, Ecosphere, Ecosystems, eLife, Evolution, Evolutionary Ecology, Evolution Letters, Experimental and Applied Acarology, Freshwater Biology, Frontiers in Ecology and Evolution, Functional Ecology, Global Change Biology, Global Ecology and Biogeography, Historical Methods, Journal of Animal Ecology, Journal of Field Ornithology, Journal of Insect Science, Journal of Raptor Research, Journal of Theoretical Biology, Limnology and Oceanography, Marine Ecology Progress Series, Nature Communications, NMOS Bulletin, Oecologia, Oikos, Peer J, PLoS One, PLoS Biology, Proceedings of the National Academy of Sciences (+ guest editor), Proceedings of the Royal Society B, Protist, Royal Society Open, The ISME Journal, Theoretical Ecology, Wilson Journal of Ornithology.

Outside proposal reviewing

NSF Division of Environmental Biology, ad hoc reviewer

M.J. Murdock Charitable Trust, ad hoc reviewer

Israel Science Foundation, ad hoc reviewer

NSERC Discovery Grant program, ad hoc reviewer

Swiss National Science Foundation, ad hoc reviewer

Czech Academy of Sciences, ad hoc reviewer

The Royal Society, University Research Fellowships, ad hoc reviewer

Outside faculty promotion and tenure reviewer

Boise State University

Oklahoma State University

Case Western Reserve University

Student poster and presentation judge

UNL undergraduate research fair, 2021

School of Biological Sciences undergraduate research day, 2019, 2022

School of Biological Sciences graduate student research day, 2019, 2021, 2022

Advisory service

External advisory board, RoL: Predicting phenotypic and eco-evolutionary consequences of environmental-energetic-epigenetic linkages. – Provided guidance and feedback to PIs about research activities and progress. 2020 – present.

Steering committee, NSF-funded RCN g2p2pop (Modeling genomes to phenomes to populations in a changing climate) – Assisted organization of network activities and reviewed RCN-supported lab exchange proposals. 2018 – present.

Science advisory committee, HawkWatch International, Inc. – Provided guidance to the board of directors and executive director of a small non-profit about the organization’s scientific goals and how to accomplish them. 1997 – 2005.

MENTORING ([BACK TO CONTENTS](#))

Graduate dissertation/thesis advisees

Francis Biagioli (PhD)
Lyndsie Wszola (PhD)
Stella Uiterwaal (PhD)
Miranda Salsbery (PhD) (graduated 2022)
Anisha Pokharel (MS) (graduated 2020)
Jazmin Castillo (MS, co-advised with J. Carroll, SNR) (graduated 2020)
Jean-Philippe Gibert (PhD) (graduated 2016)
Teresa Ely (MS) (graduated 2016)

Post-doctoral advisees

James (Colton) Watts (second half of 2020)
Kyle Coblenz (2018-current)
Tom Luhring (2015-2019)

Current graduate committee membership

Alexis Beagle (Supervisor: C. Cressler, SBS)
Hunter Ellsworth (Supervisor: J. Benson, SNR)
Pallabi Kundu (Supervisor: E. Hebets, SBS)
Chih-Chung Lee (Supervisor: B. Tenhumberg, SBS)
Laura Segura-Hernandez (Supervisor: E. Hebets, SBS)
Alex Shupinski (Supervisor: K. Lyons, SBS)
Hannah Stowe (Supervisor: J. Heath, Entomology)
Laura Vander-Meiden (Supervisor: D. Shizuka, SBS)
George Wheeler (Supervisor: C. Brassil, SBS)
Yingshang Li (Supervisor: E. Moriyama, SBS)

Past graduate committee membership

Zeina Al-Ameeli (Supervisor: S. Thomas, SNR, grad. 2020)
Christopher Anderson (Supervisor: S. Fernando, Animal Sciences, grad. 2018)
Jessica Burnett (Supervisor: C. Allen, SNR, grad. 2019)
Marie-Claire Chelini (Supervisor: E. Hebets, SBS, grad. 2016)
Noori Choi (Supervisor: E. Hebets, SBS)
Tyler Corey (Supervisor: E. Hebets, SBS, grad. 2020)
Nohemi Huanca (Supervisor: S. Russo, SBS)
Angelica Kallenberg (Supervisor: R. Gibson, SBS, withdrew)
Dave Keiter (Supervisor: J. Benson, SNR, withdrew)
Alaina Pfenning (Supervisor: C. Cressler, SBS)
Ju Ping (Supervisor: S. Russo, graduated 2016)

Benjamin Reed (Supervisor: G. Bachman, SBS, grad. 2018)

Vicki Simonsen (Supervisor: T.J. Fontaine, SNR, grad. 2018)

Andrei Snyman (Supervisor: J. Carroll, SNR, grad. 2016)

James (Colton) Watts (Supervisor: E. Hebets and B. Tenhumberg, SBS, grad. 2020)

Simone Westermayer (Supervisor: G. Ledder, Math, withdrew)

Melissa Whitman (Supervisor: S. Russo, SBS, grad. 2018)

External graduate committee membership

Azénor Bideault (University of Sherbrooke, Canada, Dominique Gravel)

Undergraduate student research advisees

Brittni McGuire (2021; co-mentor for S. Russo; Thesis)

Fatima Al-Sammak (honors thesis; co-mentor for J. Van Etten; 2021-present)

Mary Boswell (2018-2019)

Reed Broderson (UCARE and thesis; 2013-2015)

Hannah Coleman (honors thesis; 2021-present)

Emma Erickson (independent research and honors thesis; 2013-2014)

Jaden Feeney (UCARE; 2020)

Fiona Grace (UCARE; 2019-2021)

Lillie Hizer (UCARE; 2022-2023)

Ryan Kalinowski (REU student from St. Francis University and thesis; 2014)

Shelby Lyon (independent research; 2016-2017)

Jace Miller (honors thesis; 2021-present)

Rachel Novich (independent research; 2013-2014)

Joe Phillips (independent research; 2015)

Bethanne Schmid (UCARE; 2013-2015)

Amber Squires (independent research; 2019-2020)

Stella Uiterwaal (independent research and honors thesis; 2017-2018)

Alec Williams (independent research; 2018-2019)

Kristine Zimmerman (UCARE; 2015-2016)