JASON R. ROHR

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RESEARCH INTERESTS

Ecology, disease ecology, ecotoxicology, conservation, climate science

EDUCATION

2002	Ph.D., Ecology & Behavior - Binghamton University, Advisor: Dale Madison
1997	M.A. Teaching Biology - Binghamton University
1996	B.A. Biology & Environmental Studies (double degree) - Binghamton University

RELEVANT POSITIONS HELD

2016-	Director of the Center for Infectious Disease Ecology Research (CIDER),
	University of South Florida

- 2015- Affiliate, Florida Climate Institute
- 2011- Associate Professor, University of South Florida

Affiliations: Department of Integrative Biology, Patel School of Global Sustainability (2011-), Office of Sustainability (2011-)

- Conduct ecological and environmental research, teach parasitology, animal behavior, and graduate-level introductory and advanced biological statistics
- 2007-2011 Assistant Professor, University of South Florida

Affiliations: Department of Integrative Biology, Patel School of Global Sustainability (2011), Office of Sustainability (2011)

- Conduct ecological and environmental research, teach parasitology lecture and lab and graduate-level introductory and advanced biological statistics
- 2004-2007 Research Associate, Penn State University, Collaborators/Advisors: Peter Hudson & Ke Chung Kim

<u>Affiliations</u>: Center for Infectious Disease Dynamics, Penn State Institutes of the Environment, Department of Entomology, Center for BioDiversity Research

 Investigated interactions among biodiversity, parasites, and anthropogenic change

2006 Instructor, Ecology 597B – Advances in Ecology, Penn State University

 Co-taught a course addressing advances in ecology. My lectures emphasized advances in biodiversity and multivariate statistics

2006	Instructor, Entomology 497E – Insect Field Ecology and Natural History, Penn
	State University
	 Co-taught an experiential field ecology course that highlighted insect

 Co-taught an experiential field ecology course that highlighted insect dynamics, diversity, and adaptations

2005 Instructor, Entomology 595E – Insect Natural History, Penn State University

• Co-taught graduate-level field course on insect collection, identification, and biodiversity analyses

2002-2004 Post-doctoral Research Associate, University of Kentucky, Advisors: Philip Crowley and Andy Sih

Investigated the effects of pesticides on freshwater biodiversity

2001 Instructor, Biol. 366 - Ecological and Behavioral Laboratory and Field Methods, Binghamton University

 Designed and instructed a course to educate 16 undergraduates on the processes of ecological and behavioral research

1994-1995 Intern, Monroe County Environmental Management Council

 Researched environmental topics and wrote numerous publications used by the Monroe County Legislature (listed below)

PEER-REVIEWED CONTRIBUTIONS TO RESEARCH

(§undergraduate student, *graduate student, †postdoc, *denotes equal first authorship)

In press

- 111. Jennings, D.E.*, Krupa, J.J., **Rohr, J.R.** 2016. Foraging modality determines the strength of competitive interactions among carnivorous plants, spiders, and toads. *Journal of Animal Ecology* DOI: 10.1111/1365-2656.12526
- 110. Ehrsam, M.§, Knutie, S.A.†, **Rohr, J.R.** 2016. The herbicide atrazine induces hyperactivity and compromises tadpole detection of predator chemical cues. *Environmental Toxicology and Chemistry* DOI: 10.1002/etc.3377

- Jayawardena, U.A., Rohr, J.R.*, Navaratne, A.N., Amerasinghe, P.H., Rajakaruna, R.S.
 2016. Combined effects of pesticides and trematode infections on the hourglass tree frog Polypedates cruciger. <u>EcoHealth</u> 13: 111-122
- Rohr, J.R., Farag, A.M., Cadotte, M.W., Clements, W.H., Smith, J.R., Ulrich, C.P., Woods, R. 2016. Transforming ecosystems: When, where, and how to restore contaminated sites. <u>Integrated Environmental Assessment and Management</u> 12: 273-283
- 107. Madliger, C.L.*, Cooke, S.J., Crespi, E.J., Funk, J.L., Hultine, K.R., Hunt, K.E., Rohr, J.R., Sinclair, B.J., Suski, C.D., Willis, C.K.R., Love, O.P. 2016. Success stories and emerging themes in Conservation Physiology. <u>Conservation Physiology</u> 4: cov057 doi:10.1093/conphys/cov057
- 106. Buck, J.C.*, Rohr, J.R., Blaustein, A.R. 2016. Effects of nutrient supplementation on host-pathogen dynamics of the amphibian chytrid fungus: a community approach. <u>Freshwater Biology</u> 61:110-120

- 105. Staley, Z.R.*, Harwood, V.J., **Rohr, J.R.** 2015. A synthesis of the effects of pesticides on microbial persistence in aquatic ecosystems. *Critical Reviews in Toxicology* 45:813-836
- 104. Ortega, C.N.*, Price, W., Campbell, T. **Rohr, J.R.** 2015. Acquired and introduced macroparasites of the invasive Cuban treefrog, *Osteopilus septentrionalis*. *International Journal for Parasitology: Parasites and Wildlife* 4:379-384
- 103. Civitello, D.J.[†], Cohen, J.*, Fatima, H.[§], Halstead, N.T.*, McMahon, T.A.[†], Ortega, C.N.*, Sauer, E.*, **Rohr, J.R.** 2015. Reply to Salkeld et al.: Diversity-disease patterns are robust to study design, selection criteria, and publication bias. *Proceedings of the National Academy of the United States of America* 112: E6262 http://www.pnas.org/content/112/46/E6262.full.pdf
- 102. Civitello, D.J.[†], Cohen, J.*, Fatima, H.[§], Halstead, N.T.*, Liriano, J.[§], McMahon, T.A.[†], Ortega, C.N.*, Sauer, E.*, Sehgal, T.[§], Young, S.*, **Rohr, J.R.** 2015. Biodiversity inhibits parasites: broad evidence for the dilution effect. *Proceedings of the National Academy of the United States of America* 112:8667–8671 (showcased by commentaries in *PNAS* and *Science*, double star by Faculty 1000, Altmetric score of 185, 99th percentile)
- 101. Halstead, N.T.*, Civitello, D.J.[†], **Rohr, J.R.** 2015. Comparative toxicities of organophosphate and pyrethroid insecticides to aquatic macroarthropods. *Chemosphere* 135:265-271
- 100. Buck, J.C.*, Scholz, K.I. Rohr, J.R., Blaustein, A.R. 2015. Trophic dynamics in an aquatic community: Interactions among primary producers, grazers, and a pathogenic fungus. <u>Oecologia</u> 178:239–248
- 99. McMahon, T.A.*, **Rohr, J.R.** 2015. Transition of chytrid fungus infection from mouthparts to hind limbs during amphibian metamorphosis. *EcoHealth* 12:188-193
- 98. Sears, B.F.*, Snyder, P.W.\$, **Rohr, J.R.*** 2015. Host life-history and host-parasite syntopy predict behavioral resistance and tolerance to trematode parasites. <u>Journal of Animal Ecology</u> 84:625-636 (Runner-up for best student paper award 2015 from the Disease Ecology Section of the Ecological Society of America)
- 97. Boone, M.D., **Rohr, J.R.** 2015. The trouble with risk assessment lies at the foundation. <u>BioScience</u> 65:227-228
- 96. **Rohr, J.R.**, Civitello, D.J.[†], Crumrine, P.W., Halstead, N.T.*, Miller, A.D[§], Schotthoefer, A.M., Stenoien, C.[§], Johnson, L.B., Beasley, V.R. 2015. Predator diversity, intraguild predation, and indirect effects drive parasite transmission. *Proceedings of the National Academy of the United States of America* 112:3008-3013 (Altmetric score of 67, 97th percentile)
- 95. Raffel, T.R.[†], Halstead, N.T.*, McMahon, T.A.*, Davis, A.K., **Rohr, J.R.** 2015. Temperature variability and moisture synergistically interact to exacerbate an epizootic disease. <u>Proceedings of the Royal Society of London B</u> 282:20142039
- 94. Douglas, M.R.*, Rohr, J.R., Tooker, J.F. 2015. Neonicotinoid insecticide travels through a soil food chain, disrupting biocontrol of non-target pests and decreasing soybean yield.

 <u>Journal of Applied Ecology</u> 52:250-260 Editor's Choice, cover photo, and commentary (http://www.journalofappliedecology.org/view/0/editorschoice521.html; Altmetric score of 159, 99th percentile and top 10 ever for the journal as of 6/2015)

- 93. Staley, Z.R.*, Senkbeil, J.K.§, **Rohr, J.R.**, Harwood, V.J. 2014. Agrochemicals indirectly increase survival of *E. coli* O157:H7 and indicator bacteria in freshwater by reducing ecosystem services. *Ecological Applications* 24:1945-1953
- 92. Civitello, D.J.[†], **Rohr, J.R.** 2014. Disentangling the effects of parasite exposure and host susceptibility on parasite transmission: an illustration with the human zoonotic parasite, *Schistosoma mansoni*. *Journal of Animal Ecology* 83:1379-1386
- 91. Boone, M.D., Bishop, C.A., Boswell, L.A., Brodman, R., Burger, J., Davidson, C., Gochfeld, M., Hoverman, J.T., Neuman-Lee*, L., Propper, C.R., Relyea, R.A., **Rohr, J.R.**, Rowe, C.L., Salice, C., Semlitsch, R.D., Sparling, D., Weir, S*. 2014. The influence of industry: how conflicts of interest compromise pesticide regulation. *Bioscience* 64:917-922
- 90. Landis, W.G., **Rohr, J.R.**, Moe, S.J., Balbus, J.M., Clements, W., Fritz, A., Helm, R., Hickey, C., Hooper, M., Stahl, R. 2014. Global climate change and contaminants, a call to arms not yet heard? *Integrated Environmental Assessment and Management* 10:483-484
- 89. McMahon, T.A.*, Sears, B.F.*, Venesky, M.D.†, Brown, J.M.*, Deutsch, K.§, Halstead, N.T.*, Lentz, G.§, Tenouri, N.§, Young, S.*, Civitello, D.J.†, Ortega, N.*, Fites, J.S.*, Reinert, L.K.*, Rollins-Smith, L.A., Raffel, T.R.†, **Rohr, J.R.*** 2014. Amphibians acquire resistance to live and dead fungus overcoming fungal immunosuppression. *Nature* 511:224-227 (**cover photo** and featured cover story; Altmetric score of 286, 99th percentile)
- 88. Halstead, N.T.*, McMahon, T.A.*, Johnson, S., Raffel, T.R.†, Romansic, J.M.†, Crumrine, P.W., **Rohr, J.R.** 2014. Community ecology theory predicts the effects of agrochemical mixtures on aquatic biodiversity and ecosystem properties. *Ecology Letters* 17:932-941
- 87. McMahon, T.A.*, **Rohr, J.R.** 2014. Trypan blue dye is an effective and inexpensive way to determine the viability of *Batrachochytrium dendrobatidis* zoospores. *EcoHealth* 11:164-167
- 86. McKenzie, R.W.§, **Rohr, J.R.**, Motta, P.J. 2014. Orientation and patterning of the lateral line pore scales of the shortfin make *Isurus oxyrinchus*. *Journal of Fish Biology* 84:1300-1311
- 85. Venesky, M.D.[†], Liu, X., Sauer, E.[§], **Rohr, J.R.** 2014. Linking manipulative experiments to field data to test the dilution effect. *Journal of Animal Ecology* 83:557-565
- 84. Venesky, M.D.[†], Raffel, T.R, McMahon, T.A.*, **Rohr, J.R.** 2014. Confronting inconsistencies in the amphibian-chytridiomycosis system: implications for disease management. *Biological Reviews* 89:477-483
- 83. Leslie, T.W., Biddinger, D.J., **Rohr, J.R.**, Hulting, A.J., Mortensen, D.A., Fleischer, S.J. 2014. Examining shifts in Carabidae assemblages across a forest-agriculture ecotone. <u>Environmental Entomology</u> 43:18-28

- 82. **Rohr, J.R.**, Raffel, T.R., Halstead, N.T.*, McMahon, T.A.*, Johnson, S.A., Boughton, R.K., Martin, L.B. 2013. Early-life exposure to an herbicide has enduring effects on pathogen-induced mortality. *Proceedings of the Royal Society of London B* 280:20131502 (Altmetric score of 72)
- 81. Sears, B.*, Snyder, P.\$, **Rohr, J.R.** 2013. No effects of two anesthetic agents on circulating leukocyte counts or resistance to trematode infections in larval amphibians. *Journal of Herpetology* 47:498-501

- 80. **Rohr, J.R.**, Raffel, T.R., Blaustein, A.R., Johnson, P.T.J., Paull, S.H., Young, S.* 2013. Using physiology to understand climate-driven changes in disease and their implications for conservation. *Conservation Physiology* 1:cot022-cot022
- 79. Sears, B.F.*, **Rohr, J.R.** 2013. Loss of trematode parthenitae in *Planorbella trivolvis* (Mollusca: Gastropoda). *Journal of Parasitology* 99:738-739
- 78. McMahon, T.A.*, Romansic, J.M.[†], **Rohr, J.R.** 2013. Non-monotonic and monotonic effects of pesticides on the pathogenic fungus *Batrachochytrium dendrobatidis* in culture and on tadpoles. *Environmental Science and Technology* 47:7958-7964
- 77. **Rohr, J.R.**, Palmer, B.D. 2013. Climate change, multiple stressors, and the decline of ectotherms. *Conservation Biology* 27:741-751
- 76. Li, Y., Cohen, J.M.*, **Rohr, J.R.** 2013. A review and synthesis of the effects of climate change on amphibians. *Integrative Zoology* 8:145-161 **Ranked as one of the four best papers published in the journal in 2013** https://mail.google.com/mail/u/0/?pli=1#inbox/1448714d25f3d5bf
- 75. Sears, B.F.*, Snyder, P.W.\\$, **Rohr, J.R.** 2013. Infection deflection: hosts control parasite location with behavior to improve tolerance. <u>Proceedings of the Royal Society of London B</u> 280: 20130759
- 74. Venesky, M.D.[†], Hanlon, S.M.*, Lynch, K.[§], Parris, M.J., **Rohr, J.R.** 2013. Optimal digestion theory does not predict the effect of pathogens on intestinal plasticity. *Biology Letters* 9: 20130038
- 73. Liu, X., Rohr, J.R., Li, Y. 2013. Climate, vegetation, introduced hosts and trade shape a global wildlife pandemic. *Proceedings of the Royal Society of London B* 280: 20122506 double star recommendation by Faculty 1000
- 72. Raffel, T.R.[†], Romansic, J.M.[†], Halstead, N.T.*, McMahon, T.A.*, Venesky, M.D.[†], **Rohr, J.R.*** 2013. Disease and thermal acclimation in a more variable and unpredictable climate. <u>Nature Climate Change</u> 3: 146-151 (**featured in News and Views**, article by Ross Alford: http://www.nature.com/nclimate/journal/v3/n2/full/nclimate1812.html; Altmetric score of 38, 97th percentile)
- 71. McMahon, T.A.*, Brannelly, L.A.*, Chatfield, M.W.H.†, Johnson, P.T.J., Joseph, M.B.*, McKenzie, V.J., Richards-Zawacki, C.L., Venesky, M.D.†, **Rohr, J.R.** 2013. Chytrid fungus *Batrachochytrium dendrobatidis* has nonamphibian hosts and releases chemicals that cause pathology in the absence of infection. *Proceedings of the National Academy of Sciences of the United States of America* 110: 210-215 (Altmetric score of 58, 98th percentile)
- 70. **Rohr, J.R.**, Johnson, P., Hickey, C.W., Helm, R., Fritz, A., Brasfield, S. 2013. Implications of global climate change for natural resource damage assessment, restoration, and rehabilitation. *Environmental Toxicology and Chemistry* 32: 93-101

- 69. Sears, B.F*, Schlunk, A.D.§, **Rohr, J.R.** 2012. Do parasitic trematode cercariae demonstrate a preference for susceptible host species? *PLoS ONE* 7(12): e51012
- 68. Staley, Z.R.*, Senkbeil, J.K.§, **Rohr, J.R.**, Harwood, V.J. 2012. Lack of direct effects of agrochemicals on zoonotic pathogens and fecal indicator bacteria. *Applied and Environmental Microbiology* 78: 8146-8150

- 67. Koprivnikar, J., Marcogliese, D.J., **Rohr, J.R.,** Orlofske, S.A.*, Raffel, T.R.[†], Johnson, P.T.J. 2012. Macroparasite infections of amphibians: What can they tell us? *EcoHealth* 9: 342-360
- 66. Jennings, D.E.*, Edwards, G.B. **Rohr, J.R.** 2012. Associations between ground-surface spiders and other arthropods in mesic flatwoods. *Florida Entomologist* 95: 290-296
- 65. Venesky, M.D.[†], Mendelson, J.R., Sears, B.F.*, Stiling, P.D., **Rohr, J.R.** 2012. Selecting for tolerance against pathogens and herbivores to enhance the success of reintroduction and translocation programs. *Conservation Biology* 26: 586-592
- 64. McMahon, T.A.*, Halstead, N.T.*, Johnson, S., Raffel, T.R.†, Romansic, J.M.†, Crumrine, P.W., **Rohr, J.R.*** 2012. Fungicide-induced declines of freshwater biodiversity modify ecosystem functions and services. *Ecology Letters* 15: 714-722
- 63. **Rohr, J.R.**, Martin, L.B. 2012. Type I error is unlikely to hinder review recycling: a reply to Montesinos. *Trends in Ecology and Evolution* 27: 312-313
- 62. **Rohr, J.R.**, Halstead, N.T.*, Raffel, T.R.[†] 2012. The herbicide atrazine, algae, and snail populations. *Environmental Toxicology and Chemistry* 31: 973-976
- 61. **Rohr, J.R.**, Martin, L.B. 2012. Reduce, reuse, recycle scientific reviews. <u>Trends in Ecology</u> and <u>Evolution</u> 27: 192-193
- Johnson, P.T.J., Rohr, J.R., Hoverman, J.T. Kellermanns, E., Bowerman, J., Lunde, K.B. 2012. Living fast and dying of infection: Host life history drives interspecific variation in infection and disease risk. <u>Ecology Letters</u> 15: 235-242 recommended by Faculty 1000
- 59. Jennings, D.E.*, Congelosi, A.M.§, **Rohr, J.R.** 2012. Insecticides reduce survival and the expression of traits associated with carnivory of carnivorous plants. *Ecotoxicology* 21: 569-575

- 58. Staley, Z.*, **Rohr, J.R.**, Harwood, V.J. 2011. A test of direct and indirect effects of agrochemicals on the survival of fecal indicator bacteria. *Applied and Environmental Microbiology* 77: 8765-8774
- 57. Sears, B.F.*, **Rohr, J.R.**, Allen, J.E., Martin, L.B. 2011. The economy of inflammation: when is less more? <u>Trends in Parasitology</u> 27: 382-387
- 56. McMahon, T.A.*, Halstead, N.T.*, Johnson, S., Raffel, T.R.†, Romansic, J.M.†, Crumrine, P.W., Boughton, R.K., Martin, L.B., **Rohr, J.R.** 2011. The fungicide chlorothalonil is nonlinearly associated with corticosterone levels, immunity, and mortality in amphibians. *Environmental Health Perspectives* 119: 1098-1103
- 55. Lekberg, Y., Meadow, J., **Rohr, J.R.**, Redecker, D., Zabinski, C.A. 2011. Importance of dispersal and thermal environment for mycorrhizal communities: Lessons from Yellowstone National Park. *Ecology* 92: 1292-1302
- 54. Jennings, D.E.*, **Rohr J.R.** 2011. A review of the conservation threats to carnivorous plants. *Biological Conservation* 144: 1356-1363

- 53. Schotthoefer, A.M., **Rohr, J.R.**, Cole, R.A., Koehler, A.V., Johnson, C.M., Johnson, L.B., Beasley, V.R. 2011. Effects of wetland and landscape variables on parasite communities of *Rana pipiens*: links to anthropogenic changes. *Ecological Applications* 21: 1257-1271
- 52. Romansic, J.M.[†], Johnson, P.T.J., Searle, C.L.*, Johnson, J.E., Tunstall, T.*, Han, B.A., **Rohr, J.R.**, Blaustein, A.R. 2011. Individual and combined effects of multiple pathogens on Pacific treefrogs. *Oecologia* 166: 1029-1041
- 51. **Rohr, J.R.**, Dobson, A.P., Johnson, P.T.J., Kilpatrick, A.M., Paull, S.H.*, Raffel, T.R., Ruiz-Moreno, D., Thomas, M.B. 2011. Frontiers in climate change-disease research. *Trends in Ecology and Evolution* 26: 270-277 (invited submission)
- 50. Raffel, T.R.[†], Lloyd-Smith, J.O., Sessions, S.K., Hudson, P.J., **Rohr, J.R.** 2011. Does the early frog catch the worm? Disentangling potential drivers of a parasite age-intensity relationship in tadpoles. *Oecologia* 165: 1031-1042
- 49. **Rohr, J.R.**, Halstead, N.T.*, Raffel, T.R.[†] 2011. Modelling the future distribution of the amphibian chytrid fungus: The influence of climate and human-associated factors. *Journal of Applied Ecology* 48: 174-176 (invited submission)
- 48. **Rohr, J.R.**, Sesterhenn, T.*, Stieha, C.* 2011. Will climate change reduce the effects of a pesticide on amphibians?: Partitioning effects on exposure and susceptibility to pollution. *Global Change Biology* 17: 657-666

- 47. Raffel, T.R.[†], Michel, P.J.[§], Sites, E.W.[§], **Rohr, J.R.** 2010. Does temperature drive chytrid infections in newt populations? Associations with leaf litter, vegetation and shade. *EcoHealth* 7: 526-536
- 46. Raffel, T.R.[†], Johnson, P.T.J., Paull, S.H. *, **Rohr, J.R.** 2010. Symposium 16, Towards a general theory for how climate change will affect infectious disease. *Bulletin of the Ecological Society of America* 91: 467-473
- 45. Staley, Z.*, **Rohr, J.R.**, Harwood, V.J. 2010. The effect of agrochemicals on indicator bacteria densities in outdoor mesocosms. *Environmental Microbiology* 12: 3150-3158
- 44. Leslie, T.W.*, Biddinger, D.J., **Rohr, J.R.**, Fleischer, S.J. 2010. Conventional and seed-based insect management strategies similarly influence non-target coleopteran communities in maize. *Environmental Entomology* 39: 2045-2055
- 43. **Rohr, J.R.**, Raffel, T.R.†, Hall, C.§ 2010. Developmental variation in resistance and tolerance in a multi-host-parasite system. *Functional Ecology* 24: 1110-1121
- 42. Jennings, D.E.*, Krupa, J.J., Raffel, T.R.[†], **Rohr, J.R.** 2010. Evidence for competition between carnivorous plants and spiders. *Proceedings of the Royal Society B: Biological Sciences* 277: 301-308 **highlighted in** *Science* **Magazine**
- 41. Raffel, T.R.[†], Hoverman, J.T.[†], Halstead, N.T., Michel, P.[§], **Rohr, J.R.** 2010. Parasitism in a community context: Trait-mediated interactions with competition and predation. *Ecology* 91: 1900-1907
- 40. **Rohr, J.R.**, McCoy, K.A.[†] 2010. Preserving environmental health and scientific credibility: A practical guide to reducing conflicts of interest. *Conservation Letters* 3: 143-150

- Martin, L.B., Hopkins, W.A., Mydlarz, L.D., Rohr, J.R. 2010. The effects of anthropogenic global change on immune functions and disease resistance. <u>Annals of the New York</u> <u>Academy of Sciences: The Year in Ecology and Conservation Biology</u> 1195: 129-148 (invited submission)
- 38. **Rohr, J.R.**, Raffel, T.R.[†] 2010. Linking global climate and temperature variability to widespread amphibian declines putatively caused by disease. *Proceedings of the National Academy of Sciences of the United States of America* 107: 8269-8274
- 37. **Rohr, J.R.**, McCoy, K.A.[†] 2010. A qualitative meta-analysis reveals consistent effects of atrazine on freshwater fish and amphibians. *Environmental Health Perspectives* 118: 20-32

- 36. Raffel, T.R.[†], Sheingold, J.L.[§], **Rohr, J.R.** 2009. Lack of pesticide toxicity to *Echinostoma trivolvis* eggs and miracidia. *Journal of Parasitology* 95: 1548-1551
- 35. **Rohr, J.R.**, Mahan, C.G., Kim, K. 2009. Response of arthropod biodiversity to foundation species declines: the case of the eastern hemlock. *Forest Ecology and Management* 258: 1503-1510
- 34. Clements, W.H., **Rohr, J.R.** 2009. Community responses to contaminants: Using basic ecological principles to predict ecotoxicological effects. *Environmental Toxicology and Chemistry* 28: 1789-1800
- 33. **Rohr, J.R.**, Raffel, T.R.[†], Sessions, S.K. 2009. Digenetic trematodes and their relationship to amphibian declines and deformities. In: Amphibian Biology. vol. 8. Amphibian Decline: Diseases, Parasites, Maladies, and Pollution. series editor Heatwole, H. & Wilkinson, J.W. Surrey Beatty & Sons, Chipping Norton, NSW, Australia, pp 3067-3088
- 32. **Rohr, J.R.**, Raffel, T.R.[†], & Swan, A.[§], Hudson, P.J. 2009. Parasites, info-disruption, and the ecology of fear. *Oecologia* 159: 447-454
- 31. Delphia, C.M.*, **Rohr, J.R.**, Stephenson, A.G., De Moraes, C.M., Mescher, M.C. 2009. Effects of genetic variation and inbreeding on volatile production in a field population of horsenettle. *International Journal of Plant Sciences* 170: 12-20
- 30. Raffel, T.R.[†], Le Gros, R.J.[§], Love, B.C., **Rohr, J.R.**, Hudson, P.J. 2009. Parasite ageintensity relationships in red-spotted newts: Does immune memory influence salamander disease dynamics? *International Journal for Parasitology* 39: 231-241

- 29. **Rohr, J.R.**, Raffel, T.R.[†], Romansic, J.[†], McCallum, H., Hudson, P.J. 2008. Evaluating the links between climate, disease spread, and amphibian declines. *Proceedings of the National Academy of Sciences of the United States of America*. 105: 17436-17441
- 28. **Rohr, J.R.**, Schotthoefer, A.M., Raffel, T.R.[†], Carrick, H.J., Halstead, N., Hoverman, J.T.[†], Johnson, C.M., Johnson, L.B., Lieske, C., Piwoni, M.D., Schoff, P.K., Beasley, V.R. 2008. Agrochemicals increase trematode infections in a declining amphibian species. *Nature* 455: 1235-1239 **Featured on the cover**
- 27. Raffel, T.R.[†], Martin, L.B., **Rohr, J.R.** 2008. Parasites as predators: unifying natural enemy ecology. *Trends in Ecology and Evolution* 23: 610-618 (invited submission)

- 26. **Rohr, J.R.**, Raffel, T.R.[†], Sessions, S.K., Hudson, P.J. 2008. Understanding the net effects of pesticides on amphibian trematode infections. *Ecological Applications* 18: 1743-1753
- 25. Tooker, J.F.[†], **Rohr, J.R.**, Abrahamson, W.G., De Moraes, C.M. 2008. Gall insects can avoid and alter indirect plant defenses. *New Phytologist* 178: 657-671 **A featured article with an accompanying commentary**

- 24. **Rohr, J.R.**, Kim, K., Mahan, C. 2007. Developing a monitoring program for invertebrates: guidelines and a case study. *Conservation Biology* 21: 422-433
- 23. Leslie, T.W.*, Hoheisel, G.A.*, Biddinger, D.J., **Rohr, J.R.**, Fleischer, S.J. 2007. Transgenes sustain epigeal biodiversity in diversified vegetable farm systems. *Environmental Entomology* 36: 234-244
- 22. Lekberg, Y.[†], Koide, R.T., **Rohr, J.R.**, Aldrich-Wolfe, L., & Morton, J.B. 2007. Role of niche theory and dispersal in the composition of arbuscular mycorrhizal fungal communities. <u>Journal of Ecology</u> 95: 95-105

2006

- 21. **Rohr, J.R.**, Kerby, J.*, Sih, A. 2006. Community ecology theory as a framework for predicting contaminant effects. *Trends in Ecology and Evolution* 21: 606-613 (invited submission) **Featured on the cover**
- 20. Raffel, T.R.[†], **Rohr, J.R.**, Kiesecker, J.M., Hudson, P.J. 2006. Negative effects of changing temperature on amphibian immunity under field conditions. *Functional Ecology* 20: 819-828
- Dobson, A.P, Cattadori, I. Holt, R.D., Ostfeld, R.S., Keesing, F., Krichbaum, K.*, Rohr, J.R., Perkins, S.E., Hudson, P.J. 2006. Sacred cows and sympathetic squirrels: The importance of biological diversity to human health. *PLoS Medicine* 3: 714-718
- Rohr, J.R., Sager, T.*, Sesterhenn, T.*, Palmer, B.D. 2006. Exposure, post-exposure, and density-mediated effects of atrazine on amphibians: Breaking down net effects into their parts. <u>Environmental Health Perspectives</u> 114: 46-50 Featured on the cover

2005

- 17. **Rohr, J.R.**, Crumrine, P.* 2005. Effects of an herbicide and an insecticide on pond community structure and processes. *Ecological Applications* 15: 1135-1147
- Rohr, J.R., Palmer, B.D. 2005. Aquatic herbicide exposure increases salamander desiccation risk eight months later in a terrestrial environment. <u>Environmental Toxicology and Chemistry</u> 24: 1253-1258
- 15. **Rohr, J.R.,** Park, D.[†], Sullivan, A.M.*, McKenna, M.*, Propper, C.R., Madison D.M. 2005. Operational sex ratio in newts: field responses and characterization of a constituent chemical cue. *Behavioral Ecology* 16: 286-293

- 14. Sullivan, A.M.*, Madison, D.M., **Rohr, J.R.** 2004. Variation in the antipredator responses of three sympatric plethodontid salamanders to predator-diet cues. *Herpetologica* 60: 401-408
- 13. **Rohr, J.R.**, Elskus, A.A., Shepherd, B.S., Crowley, P.H., McCarthy, T.M.*, Niedzwiecki, J.H.*, Sager, T.*, Sih, A., Palmer, B.D. 2004. Multiple stressors and salamanders: Effects of an herbicide, food limitation, and hydroperiod. *Ecological Applications* 14: 1028-1040

- 12. **Rohr, J.R.**, Madison, D.M., Sullivan, A.M.* 2003. On temporal variation and conflicting selection pressures: A test of theory using newts. *Ecology* 84: 1816-1826
- 11. **Rohr, J.R.**, Elskus, A.A., Shepherd, B.S., Crowley, P.H., McCarthy, T.M.*, Niedzwiecki, J.H.*, Sager, T.*, Sih, A., Palmer, B.D. 2003. The lethal and sublethal effects of atrazine, carbaryl, endosulfan, and octylphenol on the streamside salamander, *Ambystoma barbouri*. *Environmental Toxicology and Chemistry* 22: 2385-2392
- Sullivan, A.M.*, Madison, D.M., & Rohr, J.R. 2003. Behavioural responses by red-backed salamanders to conspecific and heterospecific cues. <u>Behaviour</u> 140: 553-564
- 9. **Rohr, J.R.**, Madison, D.M. 2003. Dryness increases predation risk in efts: Support for an amphibian decline hypothesis. *Oecologia* 135: 657-664

2002

- 8. **Rohr, J.R.** 2002. Temporal and spatial variation in newt (*Notophthalmus viridescens*) response to non-injured and injured conspecifics. Dissertation, Binghamton University
- 7. **Rohr, J.R.**, Madison, D.M. 2002. *Notophthamlus viridescens* (Eastern Red-Spotted Newt) Predation. *Herpetological Review* 33: 122-123
- 6. **Rohr, J.R.**, Madison, D.M., Sullivan, A.M.* 2002. The ontogeny of chemically-mediated antipredator behaviours in newts (*Notophthalmus viridescens*): Responses to injured and non-injured conspecifics. *Behaviour* 139: 1043-1060
- 5. **Rohr, J.R.**, Madison, D.M., Sullivan, A.M.* 2002. Sex differences and seasonal trade-offs in response to injured and non-injured conspecifics in red-spotted newts, *Notophthalmus viridescens*. *Behavioral Ecology and Sociobiology* 52: 385-393
- 4. Madison, D.M., Sullivan, A.M.*, Maerz, J.C.*, McDarby, J.H., **Rohr, J.R.** 2002. A complex, cross-taxon, chemical releaser of anti-predator behavior in amphibians. *Journal of Chemical Ecology* 28: 2251-2262

2001 and before

- 3. **Rohr, J.R.**, Madison, D.M. 2001. A chemically-mediated trade-off between predation risk and mate search in newts. *Animal Behaviour* 62: 863-869
- 2. **Rohr, J.R.**, Madison, D.M. 2001. Do newts avoid conspecific alarm substances: the predation hypothesis revisited. In: *Chemical Signals in Vertebrates* (Ed. by Marchlewska-Koj, L. & Müller- Schwarze, D.), NY: Kluwer Academic/Plenum Publishers. 295-304
- 1. **Rohr, J.R.** 1997. Who likes who: Helping students understand the scientific method. <u>Engaging Educators Across the Disciplines</u> 1997: 28-32

Co-authored Technical Reports:

- Monroe County Environmental Management Council, 1997. The use of road deicing salt on state roads in Monroe County, Monroe County, NY
- Monroe County Environmental Management Council, 1996. A historical review of the Monroe County Environmental Management Council: 25th Anniversary, Monroe County, NY
- Monroe County Environmental Management Council, 1996. Preservation of environmentally sensitive areas in Monroe County, Monroe County, NY
- Monroe County Environmental Management Council, 1995. Survey of waste hauler practices in Monroe County, Monroe County, NY

<u>Submitted</u> (pre-prints available upon request):

- Cohen, J.*, Civitello, D.J.†, Brace, A.J.*, Feichtinger, E*, Ortega, N.*, Richardson, J.C.*, Sauer, E.L.*, Liu, X., **Rohr, J.R.** Spatial scale modulates the strength of ecological processes driving disease distributions. *Proceedings of the National Academy of Sciences of the United States of America* (in revisions)
- **Rohr, J.R.**, Civitello, D.J.[†], Cohen, J.^{*}, Roznik, E.A.[†], Sinervo, B., Dell, A.I. Acclimation rate and thermal breadth predicts risk from climate change. *Nature Climate Change* (in review)
- **Rohr, J.R.**, Cadotte, M.W., Clements, W.H. Synthesizing theories in the science of ecosystem restoration. *Science*
- **Rohr, J.R.**, Salice, C.J., Nisbet, R.M. The pros and cons of ecological risk assessment based on data from different levels of biological organization. *Critical Reviews in Toxicology* (in revisions)
- De Laender, F., **Rohr, J.R.**, Ashauer, R., Baird, D.J., Berger, U., Eisenhauer, N., Grimm, V., Hommen, U., Maltby, L., Meliàn, C.J., Pomati, F., Roessink, I., Radchuk, V., Van den Brink, P.J. Re-introducing environmental change drivers in biodiversity-ecosystem functioning research. *Trends in Ecology and Evolution* (in review)
- Stutz, W.E., Blaustein, A.R., Briggs, C.J., Hoverman, J.T., **Rohr, J.R.**, Johnson, P.T.J. A framework to understand parasite interactions within hosts and across scales with an application to emerging infections of amphibians. *Ecology Letters* (revisions requested)
- Gabor, C.R., Roznik, E.A., Knutie, S.A., **Rohr, J.R.** Negative effects of contaminants and disease on amphibians are generally not mediated by the stress hormone corticosterone. *Ecological Applications* (in review)
- Sauer, E.L., Sperry, J.H., **Rohr, J.R.** An efficient and inexpensive method for measuring long-term behavioral thermoregulation. *Journal of Thermal Biology* (in review)
- Bradley, P.W.*, Brawner, M.D.§, Raffel, T.R., **Rohr, J.R.**, Olson, D.H., Blaustein, A.R. Shifts in temperature influence the fungal disease chytridiomycosis in tadpoles. *Functional Ecology* (in review)
- Young, S. Nayak, B. Sun, S. Badgely, B., **Rohr, J.R.**, Harwood, V.J. Vancomycin resistant enterococci and changes in bacterial community structure associated with a residential sewage spill. *Applied & Environmental Microbiology* (in review)
- Knutie, S.A., Wilkinson, C.L., Ortega, N., **Rohr, J.R.** Host resistance and tolerance of parasitic gut worms depend on resource availability. *American Naturalist*
- Boruta, M.*, **Rohr, J.R.**, Martin, L.B. Developmental stressors induce mate-matching in female zebra finches. *Behavioral Ecology*
- McCoy, M.W.[†], Martin, L.B., **Rohr, J.R.** Quantifying resistance and tolerance. *PeerJ*
- McMahon, T.A., Boughton, R.K., Martin, L.B., **Rohr. J.R.** Exposure to an herbicide non-linearly affected corticosterone production in tadpoles. *Archives of Environmental Contamination and Toxicology*

To be Submitted within a Month (fully written pre-prints available upon request):

Taylor, R.A., Mordecai, E., **Rohr, J.R.**, Johnson, L.R. Mathematical models are a powerful method to understand and control the spread of Huanglongbing.

GRANTS AND FELLOWSHIPS

Awarded: \$ 6,500	Research Experience for Undergraduates supplement to EID: Effects of
\$ 30,133	temperature on vector-borne disease transmission: integrating theory with empirical data, NSF Do host-microbiome symbioses influence the effect of pollution on parasite susceptibility? British Ecological Society (BES) Large Research Grant (PI at USF: Jason Rohr) 9/2015-8/2016 written by my postdoc Sarah Knutie who was the actual PI on the submission to BES
\$2,448,691	EID: Using community ecology theory to predict the effects of agricultural expansion and intensification on infections of humans: implications for sustainable agriculture, NIH (PI: Jason R. Rohr, co-PI: Justin Remais, Giulio De Leo, Sanna Sokolow) 7/2015-6/2020, USF portion was \$934,680
\$2,500,000	EID: Effects of temperature on vector-borne disease transmission: integrating theory with empirical data, <u>NSF</u> (PI: Erin Mordecai, co-PI: Jason R. Rohr, Leah Johnson, Sadie Ryan, Matthew Thomas, Van Savage) 8/2015- 7/2020, USF portion was \$457,435
\$ 162,642	Physiologically-explicit epidemiology: Linking size and energetics of snail hosts to human risk pf schistosomiasis, <u>NIH</u> Ruth Kirchstein Fellowship (PI: Rohr, but awarded to fund my postdoc David Civitello who wrote grant) 2/2015-2/2017
\$ 150,000	Proposal to study the effects of herbicide application on ancillary plant species in the Upper St. Johns River Basin Marshes, <u>St Johns River Water Management District</u> (PI: Jason R. Rohr) 2/2015-2/2018 3 year project with \$50K annual contracts
\$ 58,750	Thermogregulatory behavior of southeastern amphibians following exposure to the chytrid fungus <i>Batrachochytrium dendrobatidis</i> , <u>Department of the Army, South Florida- Caribbean Cooperative Ecosystems Studies Unit (PI: Jason R. Rohr, Co-PI: Jinelle Sperry) 6/1/2014-5/31/2015</u>
\$ 734,346	Building capacity to train the next generation of under-represented and cross-disciplinary scholars of agricultural sustainability and global food security, <u>USDA</u> (PI: Jason R. Rohr, Co-PI: Earl McCoy, Steven Johnson, Sudeep Vyapari) 9/1/2013-8/31/2016
\$1,975,154	EID: Disease in complex communities: how multi-host, multi-pathogen interactions drive infection dynamics, NIH (Co-PI: Jason R. Rohr, PI: Cherie Briggs, Co-PIs: Pieter Johnson, Jason Hoverman, Andrew Blaustein) 9/1/2013-6/30/2017; Rohr's portion \$248,789
\$ 900,000	The influence of temporal and spatial scales on drivers of host-parasite interactions, NSF Macrosystem (PI: Jason R. Rohr, Co-PI: Barry Sinervo) 4/1/2013-3/31/2017

\$ 374,938	EARLY CAREER: The hazards of extreme climatic events: Predicting impacts on water quality and wildlife and human disease risk, <u>US EPA (PI: Jason R. Rohr)</u> 5/2012-4/2015
\$ 241,000	USDA National Needs Graduate Program Proposal: Training the next generation of under-represented and cross-disciplinary scholars at the frontiers of agricultural sustainability and biosecurity, <u>USDA</u> (PI: Jason R. Rohr, Co-PIs: Steven Johnson, Valerie Harwood, Henry Mushinsky) 1/2012-12/2017
\$ 50,000	Transformational reductions in human schistosomiasis by modifying agricultural practices, <u>University of Florida IFAS Research Innovation Grants</u> (PIs: Beilinski Santos, Steven Johnson, Jason R. Rohr [author]) 10/2010-9/2011
\$ 9,950	How important is phylogeny in dictating the strength of competition?, <u>University of South Florida Internal Grant</u> (PI: Jason R. Rohr) 5/2009-4/2010
\$ 398,946	Predicting the effects of agricultural practices on waterborne human pathogens, livestock helminthes, and the health of rural water-bodies, <u>USDA</u> , (PIs: Jason R. Rohr, Valerie Harwood) 12/2008-11/2012
\$ 599,353	Understanding the role of climate change and land use modifications in facilitating pathogen invasions and declines of ectotherms, <u>US EPA</u> , (Pls: Jason R. Rohr and Andrew Blaustein, Co-Pl: Thomas R. Raffel) 9/2008-8/2012
\$ 13,804	ROA supplement to Collaborative Research: Community ecology as a framework for understanding disease dynamics, <u>NSF</u> , (PIs: Jason R. Rohr, Patrick Crumrine) 5/2007-8/2007
\$ 7,500	REU supplement to Collaborative Research: Community ecology as a framework for understanding disease dynamics, <u>NSF</u> , (PIs: Jason R. Rohr, John Romansic, Tom R. Raffel) 5/2008-8/2008
\$ 6,680	REU Supplement to Collaborative Research: Community ecology as a framework for understanding disease dynamics, <u>NSF</u> , (PIs: Jason R. Rohr, Peter J. Hudson, Tom R. Raffel) 4/2007-8/2007
\$ 398,899	Using food web theory to predict ecosystem responses to agrochemicals, <u>USDA</u> , (PI: Jason R. Rohr; Co-PI: Peter J. Hudson) 10/2006-9/2011
\$ 450,138	Collaborative Research: Community ecology as a framework for understanding disease dynamics, NSF, (Pls: Jason R. Rohr and Stanley K. Sessions; Co-Pl: Peter J. Hudson) 1/2006-12/2009
\$ 89,996	Developing an invertebrate diversity monitoring and management plan for Gettysburg National Military Park, <u>National Park Service</u> , (PI: Ke Chung Kim, Co-PI: Jason R. Rohr) 9/2005-8/2007
\$ 14,974	Linking soil microbial diversity to seasonality of root production and root age, <u>Penn State University Seed Grant</u> , (Pls: Roger T. Koides, Co-Pls: David M Eissenstat and Jason R. Rohr) 1/2006-12/2006
\$ 94,888	Biodiversity inventory of Fort Indiantown Gap National Guard and Training Center, <u>Department of Military and Veteran Affairs</u> , (PI: Ke Chung Kim, Co-PI: Jason R. Rohr) 7/2005-6/2006

\$	62,645	Biodiversity assessment and monitoring of Fort Indiantown Gap National Guard and Training Center, <u>Department of Military and Veteran Affairs</u> , (PI: Ke Chung Kim, Co-PI: Jason R. Rohr) 7/2005-6/2006
\$	1,000	The impacts of disease on Kentucky's declining amphibians, <u>Kentucky Academy of Science</u> Athey Grant, 2004-2005 (PI: Jason R. Rohr, Co-PI: Tim Sesterhenn)
\$	9,600	Dissertation Fellowship for the 2001-2002 academic year
\$	2,000	Binghamton University Summer Research Grant, 2000
\$	1,350	Sum of five travel grants, 2000-2002
	e nding (in ,398,072	review or to be resubmitted): Collaborative Research: MSB-FRA: Global climate change, phenological shifts, and effect on species interactions across scales, <u>NSF</u> (PI: Jason R. Rohr, co-PIs: Marc Lajeunesse, Anthony Dell)
\$1	,681,192	Strategic, data-driven modeling for the design and assessment of HLB control strategies, <u>USDA</u> (PI: Jason R. Rohr, co-PIs: Leah Johnson, Phil Stansly)
\$ 547,692		NSF: Collaborative Research: Managing epidemics in wildlife with acquired resistance. NSF (PI: Jason R. Rohr, Co-PI: David J. Civitello, Taegan McMahon, Pieter Johnson, Anna Savage)
\$	268,577	The Impact of Climate Change on Oil and Dispersant Toxicity. <u>Gulf of Mexico Research Initiative</u> (PI: Jason R. Rohr, Co-PI: Peter Stiling, Nancy Smith, Dana Wetzel)

PRESENTATIONS

Invited Talks and Seminars (Rohr was presenter unless noted):

Hopkins Marine Station, Stanford University, Pacific Grove, CA (scheduled for May

Stanford University, Department of Biology, Stanford, CA (scheduled for May 10) University of Florida, Environmental and Global Health Seminar series, Gainesville, FL

Gordon Research Conference: "New Frontiers in Understanding Predator-Prey Interactions in a Human-Altered World", Ventura, CA

2015 Cary Institute of Ecosystem Studies, Millbrook, NY

Indiana University, Department of Biology, Bloomington, IN (*graduate student selection as invited speaker*)

Pandemic Prediction and Forecasting Science and Technology Working Group, Washington D.C. "A pragmatic approach to forecasting dengue incidence", September 2015. Johnson, L. (presenter), Gramacy, R., Rohr, J., Cohen, J., Mordecai, E., Murdoch, C., Ryan, S., Stewart, A., Weikel, D.

Ecological Society of America National Meeting, Baltimore, MA (two invited talks) Ecological Society of America National Meeting, Baltimore, MA (two invited talks)

University of South Florida, Trail Blazers Lecture Series, Tampa, FL Society for Integrative and Comparative Biology Meeting, West Palm Beach, FL, Special Symposium "Physiology in changing landscapes: an integrative perspective for conservation biologists"

- 2014 German Center for Integrative Biodiversity Research (iDiv), Leipzig University, Germany
 - Society for Environmental Toxicology and Chemistry Meeting, Vancouver, CA, Special Symposium "Ecological Models for Assessing the Risks of Chemicals and Other Stressors – Part 2: From Individuals to Populations"
 - Society for Environmental Toxicology and Chemistry Meeting, Vancouver, CA, Platform Session "Restoration of Impaired Ecosystems: An Ounce of Prevention or a Pound of Cure"
 - Lund University, Sweden, Biology Department, (*graduate student selection as invited speaker*)

US. Fish and Wildlife Service Conservation Science Webinar Series University of Tennessee, Center for Wildlife Health Clearwater Christian College, Department of Biology

- 2013 Joint scientific meeting of the Society of Wetland Scientists South Atlantic Chapter, Florida Association of Environmental Soil Scientists, and Southwest Chapter of the Florida Association of Environmental Professionals
 - EPA STAR Research Forum: Extreme Event Impacts on Air Quality and Water Quality with a Changing Global Climate, Arlington, VA

University of Illinois Urbana-Champaign, Animal Biology Department University of Florida, Wildlife Ecology and Conservation Department

- 2012 University of California at Santa Cruz, Ecology and Evolutionary Biology Department Emory University, Department of Environmental Health and the Department of Environmental Studies
 - 7th World Congress of Herpetology, Vancouver, Canada; Symposium: "Amphibians and reptile ecotoxicology Interactions among contaminants and natural stressors"
 - 7th World Congress of Herpetology, Vancouver, Canada; Symposium: "When do infectious diseases pose conservation threats to reptiles and amphibians?"

UCLA, Department of Ecology and Evolutionary Biology

Land Grant and Sea Grant National Water Conference, Portland, OR (given by Co-PI)

University of South Florida, Science and Society Symposium (campus-wide event)

- 2011 Society for Environmental Toxicology and Chemistry Meeting, Boston, Platform Session "Fungicides: Occurrence, Environmental Fate, and Toxicity"
 - Society for Environmental Toxicology and Chemistry Meeting, Boston, Platform Session "Amphibian and Reptile Ecotoxicology: Interactions Among Contaminants and Other Stressors"

University of South Florida, Environmental Research Interdisciplinary Symposium Virginia Tech University, Ecology and Evolutionary Biology Seminar Series MI H2Objective Conference: Research Shaping Michigan's Water Future, Michigan's University Research Corridor Symposium Series, Detroit, MI STAR Grant Progress Review Meeting, Washington, D.C.

Society for Environmental Toxicology and Chemistry sponsored Pellston Workshop on the "Influence of Global Climate Change On the Scientific Foundation and Application of Environmental Toxicology and Chemistry", Racine, WI Tulane University, Department of Ecology and Evolutionary Biology University of South Florida, College of Public Health, Global Health Seminar Series USDA Water and Watershed & Agricultural Water Science Program Project Directors Meeting, Washington, DC, presented by graduate student

2010 Illinois State University, School of Biological Sciences

University of Colorado, Department of Ecology and Evolutionary Biology (*graduate student selection as invited speaker*)

Ecological Society of America National Meeting, Pittsburgh, PA, Symposium: Towards a General Theory for How Climate Change will affect Infectious Disease (gave intro. and moderated discussion)

Ecological Society of America National Meeting, Pittsburgh, PA, Symposium: Towards a General Theory for How Climate Change will affect Infectious Disease (postdoc gave talk)

American Society of Parasitologists National Meeting, Colorado Springs, CO, Symposium: Causes and Consequences of Helminth Infections in Amphibians University of Florida, Gulf Coast Research and Education Center

National Synthesis Workshop: Pathogens (Bacteria, Viruses and Protozoa) in Rural and Agricultural Water and Watersheds (Ithaca, NY, postdoc presented)

Vanderbilt University, Department of Microbiology and Immunology

Belmont University, Department of Biology

USDA-NIFA Water and Watershed Annual Awardee Meeting (Hilton Head, SC; co-PI presented)

2009 Penn State University, School of Forest Resources

American Society of Agronomy – Crop Science Society of America – Soil Science Society of America Joint International Meeting (Pittsburgh, PA), USDA-CSREES-NRI Managed Ecosystems Annual Awardee Meeting

University of Central Florida, Department of Biology

Society for Conservation Biology Meeting (Flagstaff, AZ), Organized Symposium: "Infectious Disease and Conservation in North America"

Ecological Society of America Meeting (Albuquerque, NM), Organized Oral Session: "Climate Change Science in Conservation Planning"

US EPA National Meeting on the "Plight of Ecosystems in a Changing Climate: Impacts on Services, Interactions, and Responses" (Seattle, WA)

Archbold Biological Station (Lake Placid, FL)

Emporia State University (Emporia, KS), Department of Biological Sciences (*graduate student selection as invited speaker*)

Joint Meeting of Ichthyologists and Herpetologists (Montreal, Canada), Organized Symposium: "Biodiversity and agricultural sustainability in North America" Southeast Partners in Amphibian and Reptile Conservation Annual Meeting (Athens, GA)

Ecological Society of America Meeting (San Jose, CA), Organized Oral Session:

"Disease emergence and amphibian decline: using ecology to understand patterns and promote restoration" (co-author presented)

Smithsonian Environmental Research Center

Oklahoma State University, Department of Zoology University of South Florida, Department of Biology USGS- and EPA-sponsored International Meeting: Understanding agriculture's effects on amphibians and reptiles in a changing world (St. Louis, MO). Indiana University, School of Public and Environmental Affairs University of California at Davis, joint seminar: Wildlife, Fish and Conservation Biology Department and Environmental Science and Policy Department International Conference on the Ecology and Evolution of Infectious Diseases (State College, PA), invited to moderate and give a 10 min. synthesis of the organized session entitled "Parasites in field systems" Penn State University, Department of Entomology Fordham University, Biology Department Indiana University, joint seminar: Department of Biology and School of Public and Environmental Affairs International Conference on Mycorrhiza, Granada, Spain, (given by collaborator) Mid-Atlantic Mosquito Control Association Meeting, Harrisburg, PA University of California at Davis, Environmental Science and Policy Department Duquesne University, Department of Biological Sciences Center for Infectious Disease Dynamics, State College, PA Pennsylvania Invertebrate Biodiversity Project Meeting, State College, PA Penn State University, Intercollege Program in Ecology University of Virginia, Blandy Experimental Farm NIH-sponsored National Meeting: Atrazine and the health of humans and wildlife: State of the science and future research needs, Iowa City, IA Penn State University, Department of Entomology Binghamton University, Department of Biological Sciences University of California at Davis, Environmental Science and Policy Department University of Kentucky, Department of Biology University of Kentucky, Department of Biology **Presentations at National and International Meetings** (Rohr was presenter unless noted): Society for Integrative and Comparative Biology, Portland, OR (3 talks, 2 by my graduate students and one by a colleague) Ecological Society of America Meeting, Baltimore, CA (4 talks, 2 given by me, 2 by PhD students, and 1 poster by my colleague) Ecological Society of America Meeting, Sacramento, CA (3 talks, 1 given by me, 3 by

26th International Congress for Conservation Biology, Baltimore, MD (talk given by

Society for Integrative and Comparative Biology, San Francisco, CA (poster given by

PhD students, and 1 by my colleague)

colleague)

PhD student)

2006

2005

2004

2003

2001

2016

2015

2014

2013

2012	American Society of Microbiology, San Francisco, CA (1 poster given by grad. student) Society of Environmental Toxicology and Chemistry World Congress, Berlin,
2011	Germany (1 talk given by colleague) Society for Environmental Toxicology and Chemistry, Boston, MA (1 talk) Ecological Society of America Meeting, Austin, TX (5 talks, 1 given by me, 3 by PhD students, and 1 by my colleague) Declining Amphibian Populations Task Force California/Nevada Working Group Meeting, Yosemite National Park, CA (former postdoc gave talk) Society for Integrative and Comparative Biology, Salt Lake City, UT (poster given by colleague)
2010	Entomological Society of America, San Diego, CA (talk given by grad. student) American Society for Microbiology, San Diego, CA (talk given by grad. student) International Symposium on Aquatic Animal Health, Tampa, FL (poster given by grad. student) Ecological Society of America, Pittsburgh, PA (postdoc gave two posters) American Society of Parasitologists Meeting, Colorado Springs, CO (poster given by grad. student) American Society for Microbiology, San Diego, CA (talk given by grad. student)
2009	Ecological Society of America Meeting, Albuquerque, NM, (two talks given by my postdocs and a poster given by my grad. student) American Ornithologist Union (a talk and a poster given by colleagues) Society for Integrative and Comparative Biology, Boston, MA (talk given by my grad. student)
2008	Society for Environmental Toxicology and Chemistry, Tampa, FL (two talks) Ecological Society of America meeting, Milwaukee, WI (three talks, none were presented by Rohr) Annual USDA Managed Ecosystems Project Director meeting, Madison, WI (poster)
2007	International Meeting on Amphibian Declines & Chytridiomycosis: Translating Science into Urgent Action, Tempe, AZ (poster given by my postdoc) Meeting of the Entomological Society of America, San Diego, CA. (two talks given by collaborators) Annual Penn State-Cornell Mini-symposium in Chemical Ecology, State College, PA. (given by collaborator) USGS- and EPA-sponsored International Meeting: Understanding agriculture's effects on amphibians and reptiles in a changing world, St. Louis, MO (poster)
2006	Ecological Society of America meeting, Memphis, TN (three total, one first authored) International Conference on the Ecology and Evolution of Infectious Diseases, State College, PA (poster)
2005	Ecological Society of America Meeting, Montreal, Canada Entomological Society of America meeting, Ft. Lauderdale, FL (given by collaborator)
2004	Entomological Society of America meeting, Salt Lake City, UT. (given by collaborator)

Society of Environmental Toxicology and Chemistry meeting, Austin, TX
 Society of Environmental Toxicology and Chemistry meeting, Austin, TX
 Entomological Society of America meeting, Cincinnati, OH. (given by collaborator)
 Ecological Society of America meeting, Savannah, GA
 Animal Behaviour Society meeting, Bloomington, IN
 Animal Behaviour Society meeting, Corvallis, OR
 Society for the Study of Amphibians and Reptiles meeting, Indianapolis, IN
 Ninth International Symposium on Chemical Signals in Vertebrates, Kraków, Poland (given by PhD advisor)

ADVISING AND TRAINING

Postdoctoral Advisees:

- Dr. David Pike: Aug. 2015-Present (PhD James Cook University)
- Dr. Elizabeth (Betsy) Roznik: Sept. 2014-Present (PhD James Cook University)
- Dr. Sarah Knutie: June 2014-Present (PhD from University of Utah)
- Dr. David Civitello: 2013-Present (PhD from University of Indiana; perfect score on NIH Ruth Kirchstein Grant with Rohr and Roger Nisbet as advisors)
- Dr. Taegan McMahon: 2013-2014 (PhD from University of South Florida, faculty member at the University of Tampa)
- Dr. Matthew Venesky: 2011 2013 (PhD from University of Memphis, faculty member at Allegheny College)
- Dr. Jamie Voyles: April 2012– Dec. 2012 (co-advised with Dr. Erica Rosenblum from UC Berkeley, faculty member at University of Nevada, Reno)
- Dr. Thomas Raffel: 2006 2011 (PhD from Penn State University, faculty member at Oakland University)
- Dr. Krista McCoy: 2009 2010 (PhD from University of Florida, faculty member at Eastern Carolina University)
- Dr. Mike McCoy: 2009 2010 (PhD from University of Florida, faculty member at Eastern Carolina University)
- Dr. John Romansic: 2007 2009 (PhD from Oregon State University, presently working for the USGS)
- Dr. Denise Piechnik: 2007 2009 (co-advised with Ke Chung Kim; PhD from UC Davis, faculty member at University of Pittsburg at Bradford)
- Dr. Jason Hoverman: 2007 (PhD from University of Pittsburgh, faculty member at the Purdue University)

Graduate Advisees:

David Jennings, PhD received in 12/2011 (postdoc at the University of Maryland)

Zach Staley, PhD received 5/2013; co-advised with Dr. Valerie Harwood (postdoc at Western Ontario University)

Taegan McMahon, PhD received 8/2013 (faculty member at the University of Tampa; <u>USF</u>
<u>Dissertation Completion Fellowship</u>, <u>National Runner-up for the prestigious Marshall-Sherfield Postdoctoral Fellowship in the United Kingdom; USF Outstanding Dissertation Award Winner)</u>

Jenise Brown, MS received 8/2013

Brittany Sears, PhD received in 12/2013, <u>University of South Florida Presidential Fellow</u> (works for Evolution Institute and edits for *BioScience*)

Aja-Nikiya Estro, MA received 12/2014 (advisor through Patel College of Global Sustainability) Alicia Buchanan, MA received 12/2014 (advisor through Patel College of Global Sustainability) Neal Halstead, PhD received 5/2015 (Senior Ecologist at Wildlands Conservation, Tampa, FL; National Runner-up for the prestigious Marshall-Sherfield Postdoctoral Fellowship in the United Kingdom)

Jeremy Cohen (PhD candidate since 8/2011); <u>USF Dissertation Completion Fellowship</u>
Christina (Nicole) Ortega (PhD candidate since 8/2011) Latino; <u>NSF Pre-doctoral Fellow 2013</u>
Suzanne Young (PhD candidate since 8/2012; co-advised with Dr. Valerie Harwood) <u>EPA STAR</u>
Fellow

Erin Sauer (PhD candidate since 1/2014)

Bryan Delius (PhD candidate since 8/2014)

Karena Nguyen (PhD candidate since 8/2014; co-advised with Dr. Valerie Harwood)

Chloe Ramsay (PhD candidate since 8/2015)

Technicians:

Kerri Surbaugh 2016-

Christina Wilkinson 2015-

Kaitlin Deutsch 2015 (currently on a full graduate scholarship at Oxford University)

Erin Sauer 2013 (currently my PhD student)

Scott Bessler 2012-2013 (Master from the University of Alabama, presently works for the US EPA in Cincinnati)

Monica McGarrity 2011

Kristin Parker 2011-2012

Neal Halstead 2007 – 2011 (PhD from my laboratory, currently and environmental consultant)

Undergraduate Advisees:

Trained and supervised >100 undergraduate research assistants

Summer 2015: Advisor to Qiu Chang Wu from Colorado College through the Leadership Alliance Summer Research Early Identification Program for underrepresented students in science

Undergraduate Honors Theses

Jake Pristupa (current)

David Bichai (2016)

Kirsti Medina (2016)

Christopher Hagen (2016)

Natalia Cano (2016) Hispanic

Kaitlin Deutsch (2015, **Barry M. Goldwater Scholarship** recipient 2014; the most prestigious undergraduate award given in the sciences— is awarded to about 300 college sophomores and juniors nationwide; on a Frost Scholarship to pursue a MS at Oxford University, begins PhD program at Cornell University on a NSF GRFP 8/2016)

Nadia Tenouri (2015, MS program Aukland University) Middle Eastern

Garrett Lentz (2015, MS program Aukland University)

Mackenzie Ehrsam (2015, working toward PhD in Veterinary Sciences)

Danielle Vermilyea (2014, PhD program at Univ. of Florida)

Kaitlyn Nemecek (2013)

Joseph Simon (2012) Latino

Anne Frelick (2012)

Veronique Etienne (2011, PhD program Univ. of Florida) Haitian female

Natassia Watson (2011, MS USF Global Health, PhD program Univ. of Florida) African American female

Andrea Schlunk (2009, MS in Germany, investigator at Woods Hole, PhD student at University of Rhode Island)

Callyn Hall (2009, received a graduate degree from USF Global Health)

Graduate Committees:

Loren Byrne. Penn State University, ad hoc member, PhD received in 8/2006, Assistant Professor at Roger Williams University, RI

Timothy Leslie. Penn State University, ad hoc member, PhD received in 12/2007, Lecturer at Long Island University, NY

Lance Arvidson, University of South Florida, MS received 5/2008

Joshua Kuhlman, University of South Florida, MS received 5/2010

Anna Deyle, University of South Florida, MS received 12/2011

Heather Jezorek, University of South Florida, PhD received 12/2011

Chris Staley, University of South Florida, PhD received 5/2012

Andrea Liebl, University of South Florida, PhD received 8/2013

Keith Stokes, University of South Florida, PhD received 12/2013

Danielle Noaker, University of South Florida, MS received 12/2013

Shubhabrata Paul, University of South Florida, Geology Dept., PhD received 12/2013

Samantha Mulvany, University of South Florida, PhD received 12/2013

Courtney Coon, University of South Florida, PhD received 5/2014

Martyna Boruta, University of South Florida, MS 8/2014

Paul Thurman, University of South Florida, PhD received 5/2016

Chris Haggerty, University of South Florida, PhD candidate (member since 2/2011)

Lauren Vanmaurik, University of South Florida, PhD candidate (member since 5/2011)

Amber Brace, University of South Florida, PhD candidate (member since 2/2012)

Holly Klivitis, University of South Florida, PhD candidate (member since 2013)

Nicholas Ogburn, University of South Florida, PhD candidate (member since 12/2014)

Jeff Olberding, University of South Florida, PhD candidate (member since 2/2015)

Wesley Anderson, University of Florida, PhD candidate (member since 2/2015)

Segall Bloom, University of South Florida, PhD candidate (member since 10/2015)

Meredith Krause, University of South Florida, MS candidate (member since 5/2016)

AWARDS/HONORS

- University of South Florida Outstanding Research Achievement Award (2009, 2013)
- Declined the Harley Jones Van Cleave Endowed Professor position of Host-Parasite Interactions from the University of Illinois at Urbana-Champaign (10/2013)
- Selected by Dean of USF's College of Arts and Sciences to give a talk to donors in their Trail Blazers lecture series showcasing "USF's best faculty" (2015)
- Peer selected as the Best Researcher/Scholar at the University of South Florida for the 2014-2015 competition organized by FacultyAwards.org
- One of three teams (of 17) invited to speak at the White House for the NOAA Dengue Forecasting Challenge (lead author Dr. Leah Johnson) (9/2015)
- Nominated for the Sabin Award for Amphibian Conservation (2015)
- Nominated for the Society of Environmental Toxicology and Chemistry's Rachel Carson Award (2015)
- Nominated by two students for the University of South Florida's Jerome Krivanek's Distinguished Teacher Award (2015)

- Featured articles in Nature (top-ranked general science journal 2008, 2014), Nature Climate Change (2013), Trends in Ecology and Evolution (number one ranked journal in ecology, 2006), Environmental Health Perspectives (ranks 2cd among 132 environmental sciences journals, 2010), Journal of Applied Ecology (2015), New Phytologist (2008), and Integrative Zoology (2013)
- Research featured on National Public Radio "All Things Considered" (2008)
- Research featured on Canadian National Television (2014)
- Research featured on ABC Action News and Fox 13 News (2008, 2012)
- Work featured on front page of Tampa Tribune (2012) (http://www2.tbo.com/news/breaking-news/2012/may/22/namaino1-study-uncovers-a-chemical-killer-ar-406427/)
- Work featured on front page of St. Pete Times Local section (2011)
 (http://www.tampabay.com/news/environment/wildlife/usf-study-concludes-that-common-fungicide-is-deadly-to-frogs/1162355)
- Research featured in textbooks: and
 - Introduction to Environmental Toxicology: Molecular Substructures To Ecological Landscapes, 4th edition by Landis, Sofield, Yu
 - *Ecology* 2cd edition by Cain, Bowman, and Hacker (in several chapters and in the in the online companion website Chapter 13.1: http://sites.sinauer.com/ecology2e/ccc13.1.html)
- Selected to serve on the National Climate Assessment, US EPA, and US. Global Change Research Programs team to identify National Freshwater Indicators of Climate Change (2012-Present)
- Selected for NIMBios Workshop on Ecological Risk Assessment (4/2014)
- Selected for one week workshop in Jackson Hole, WY on Restoration of Impaired Ecosystems (6/2014) jointly sponsored by the Society for Environmental Toxicology and Chemistry and the Society for Ecological Restoration (also selected as chair of workgroup 3)
- Nominated by the National Science Foundation as a candidate for membership on the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Scientific Advisory Panel (declined nomination, 2012)
- Binghamton University Graduate Award for Excellence in Research, 2002
- Broome County Earth Star Award, Binghamton, NY, 1996

SCHOLARLY SERVICE

International and National

- Associate Editor for *Journal of Applied Ecology* (2014-Present)
- Review Editor for EcoHealth (2010-Present)
- Founding Father of the Ecological Society of America's Disease Ecology Section (2014)
- Ad hoc referee for NSF grants (21 times, 2006-Present)
- DOD SERDP Grant panelist (2015)
- US EPA STAR Grant Panelist (2013, 2015)
- Served on USEPA FIFRA Scientific Advisory Panel for the "Determination of the Ecological Significance of Atrazine Effects on Primary Producers in Surface Water Streams in the Corn and Sorghum Growing Region of the United States (Part II)", Washington D.C., 2009
- Served on the American Society of Parasitology's Honorary Members and Distinguished Members Emeriti Committee (Chair from 2013-2014, member 2012-2013)
- Great American Teach-In (2014)
- Reviewed manuscripts for the following journals (number in parentheses indicates number of times I have reviewed):

Acta Tropica (1), Advances in Ecology (1), American Midland Naturalist (1), American Naturalist (2), Amphibia-Reptilia (1), Animal Conservation (3), Basic and Applied Ecology (2), Behaviour (4), Behavioral Ecology and Sociobiology (2), Biological Reviews (2), Biology Letters (2), Comparative Biochemistry and Physiology (2), Chemosphere (3), Conservation Biology (5), Copeia (4), Current Biology (2), Diseases of Aquatic Organisms (6), Ecography (1), EcoHealth (14), Ecological Applications (12), Ecological Entomology (1), Ecology (10), Ecology and Evolution (1), Ecology Letters (12), Ecosphere (1), Ecotoxicology (5), Environmental Health Perspectives (1), Environmental Pollution (1), Environmental Science and Technology (1), Environmental Toxicology and Chemistry (21), Ethology (2), Evolutionary Applications (1), Freshwater Science (2), Frontiers in Ecology and the Environment (2), Functional Ecology (4), G3: Genes, Genomes, Genetics (2), Global Change Biology (5), Herpetologica (2), Herpetological Journal (1), Herpetological Conservation and Biology (1), Hormones and Behavior (1), Hydrobiologia (1), Integrative Zoology (2), International Journal of Parasitology (2), Journal of Applied Ecology (8), Journal of Animal Ecology (7), Journal of Biogeography (2), Journal of Chemical Ecology (1), Journal of Ethology (1), Journal of Experimental Zoology Part A: Ecological Genetics and Physiology (1), Journal of Herpetology (3), Journal of National Science Foundation of Sri Lanka (1), Journal of Zoology (1), Nature Communications (1), Oecologia (11), Oikos (3), Parasitology Research (3), Philosophical Transactions of the Royal Society of London B (1), PLoS Biology (1), PLoS Neglected Tropical Diseases (2), PLoS One (3), Proceedings of the National Academy of Sciences (9), Proceedings of the Royal Society of London B (9), Science (2), Science of the Total Environment (3), Thermal Biology (1), Trends in Ecology and Evolution (2), Trends in Parasitology (2)

Regional and Local

- Served on the Department of Integrative Biology Faculty Advisory Committee (member 2014-2015, chair 2016)
- Served on the Department of Integrative Biology Visibility Committee (member 2013-2015)
- Served on the Department of Integrative Biology Graduate Committee (member 2011-2012)
- Served on University of South Florida Faculty Development Committee (alternate 2012-)
- Served on University of South Florida IACUC committee (alternate 2010-2015, primary 2015-)
- Served on University of South Florida Grievance Committee (member 2010-)
- Served on University of South Florida Safety Committee (member 2009-)
- Served on University of South Florida College of Arts and Sciences Travel Safety Committee (member 2013-2014)
- Served on the University of South Florida Committee to hire four faculty members in STEM education (Integrative Biology chair 2012-2013)
- Served on the University of South Florida Internal Grant Review Panel for Environmental Science submissions (member 2008)
- Served on the Department of Integrative Biology Web and Seminar Committee (chair 2008-2010, member 2012)
- Faculty Advisor to USF Wildlife Conservation Club (2014-)
- Served on the Tampa Lowry Park Zoo's Scientific Review Committee (2011-)
- Regularly give presentations at Elementary Schools in Tampa (2009-)
- Conducted tours of Binghamton University's Nature Preserve, 1995-2002
- Designed, built, and tracked the development of a wetland, Binghamton, NY, 1993-2002
- Planned and implemented a free ethnic, sexual and cultural diversity conference for students, faculty, and staff, Binghamton Univ., 2000
- Coordinated regional and campus activities for Earth Week, Binghamton Univ., 1996
- Director of the Environmental Awareness Module, Binghamton Univ., 1995-1996

Coordinator of Binghamton Environmental Action Resource, Binghamton Univ., 1995-1996

RESEARCH SKILLS/KNOWLEDGE

Proficient at both laboratory and field experimental design, and numerous statistical analyses, such as parametric, nonparametric, multivariate, and power analyses; general and generalized statistical models, null model analyses, permutation tests, information-theoretic model selection, ordination techniques, path analysis and structural equation modeling

PROFESSIONAL AFFILIATIONS (past and present)

Ecological Society of America, Society for Environmental Toxicology and Chemistry, American Society for Parasitologists, Society for Conservation Biology, Society of Integrative and Comparative Biology, American Society for Microbiology, Animal Behavior Society, Sigma Xi, Society for the Study of Amphibians and Reptiles, National Association of Biology Teachers

SELECTED MEDIA COVERAGE

Central Illinois: A Cancer Cluster? by Clare Howard • December 31, 2015 (http://thecommunityword.com/online/blog/2015/12/31/central-illinois-a-cancer-cluster/)

Research featured in National Geographic Kids magazine (issue October 2015)

Featured story on Tampa Tribune Sept. 9 2015: http://www.tbo.com/weather/tampa-area-bedeviled-by-thousands-of-tiny-frogs-after-heavy-rain-20150905/

Civitello et al. 2015. Proceedings of the National Academy of the United States of America

- http://www.npr.org/sections/goatsandsoda/2015/06/26/416858166/save-wildlife-save-yourself
- http://www.mnn.com/earth-matters/stories/saving-wildlife-might-be-good-your-health
- http://conservationmagazine.org/2015/06/the-blood-sucking-consequences-of-biodiversitydecline/
- http://phys.org/news/2015-06-biodiversity-human-wildlife-diseases-crop.html
- http://agro.biodiver.se/2015/08/brainfood-vavilov-then-now-always-helmeted-fowl-diversity-maize-lethal-necrosis-resistance-sorghum-diversity-facilitation/
- http://www.npr.org/sections/goatsandsoda/2015/06/26/416858166/save-wildlife-save-yourself?utm_medium=RSS&utm_campaign=health
- http://www.iflscience.com/diverse-ecosystems-control-infectious-diseases
- http://e360.yale.edu/digest/biodiversity_limits_parasites_in_humans_wildlife_and_plants_stud y_says/4460/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+YaleE nvironment360+%28Yale+Environment+360%29

Rohr, J.R. et al. 2015. *Proceedings of the National Academy of the United States of America.* Predator diversity, intraguild predation, and indirect effects drive parasite transmission

- http://www.upi.com/Science_News/2015/02/23/Small-predator-diversity-key-to-a-healthy-ecosystem/8841424729510/
- http://www.sciencedaily.com/releases/2015/02/150223164529.htm
- http://phys.org/news/2015-02-small-predator-diversity-important-healthy.html
- http://www.upi.com/Science_News/2015/02/23/Small-predator-diversity-key-to-a-healthy-ecosystem/8841424729510/
- http://www.terradaily.com/reports/Small_predator_diversity_key_to_a_healthy_ecosystem_99
 9.html

- http://www.natureworldnews.com/articles/12944/20150224/insect-predators-may-protect-usfrom-infectious-diseases.htm
- http://www.futurity.org/biodiversity-frogs-predators-862342/
- http://www.eurekalert.org/pub_releases/2015-02/uosf-ubr022315.php
- http://www.eurekalert.org/pub_releases/2015-02/ps-spd022315.php
- http://www.sciencecodex.com/usf_biologists_reductions_in_biodiversity_can_elevate_disease risk-151410
- http://www.techtimes.com/articles/34954/20150224/diversity-of-small-predators-has-hugeimpact-on-ecosystems.htm
- http://www.asiaeu.com/science/small-predator-diversity-is-an-important-part-of-a-healthy-ecosystem-h210049.html
- http://esciencenews.com/articles/2015/02/24/small.predator.diversity.important.part.a.healthy. ecosystem
- http://www.azocleantech.com/news.aspx?newsID=21494
- http://wildlife.org/predator-biodiversity-reduces-disease-in-tadpoles/

Douglas, M.R., Rohr, J.R., Tooker, J.F. 2015. *Journal of Applied Ecology* Neonicotinoid insecticide travels through a soil food chain, disrupting biocontrol of non-target pests and decreasing soybean yield

- http://jappliedecologyblog.wordpress.com/2014/12/03/silent-spring-redux-insecticides-cascade-up-a-food-chain-to-poison-carnivores/
- http://www.sciencedaily.com/releases/2014/12/141204121436.htm
- http://www.planetexperts.com/neonicotinoid-pesticides-creating-toxic-slugs/
- http://www.natureworldnews.com/articles/10901/20141204/insecticides-creating-toxicslugs.htm
- http://jappliedecologyblog.wordpress.com/2014/12/03/silent-spring-redux-insecticidescascade-up-a-food-chain-to-poison-carnivores/
- http://www.eurekalert.org/pub_releases/2014-12/ps-if120414.php
- http://www.newsgb.com/science/insecticides-foster-toxic-slugs-reduce-crop-yieldsh30060.html
- http://pewjournal.com/2014/12/04/this-insecticide-lets-more-slugs-eat-crops/

McMahon et al. 2014. *Nature* Amphibians acquire resistance to live and dead fungus overcoming fungal immunosuppression

- http://www.nytimes.com/2014/07/09/science/hope-for-frogs-facing-a-deadly-fungus.html?_r=0
- http://www.nature.com/nature/podcast/index-2014-07-10.html
- http://www.theguardian.com/environment/2014/jul/09/chytrid-fungus-breakthroughamphibians-oak-toad
- http://news.sciencemag.org/biology/2014/07/cure-plague-frogs
- http://scienceblog.com/73255/amphibians-can-acquire-resistance-deadly-fungus/
- http://phys.org/wire-news/166431478/amphibians-can-acquire-resistance-to-deadly-fungus.html
- http://news.usf.edu/article/templates/?a=6330&z=38
- http://www.sciencenewsline.com/summary/2014071000080066.html
- http://www.bio-medicine.org/biology-news-1/USF-study-3A-Amphibians-can-acquire-resistance-to-deadly-fungus-36728-1/
- http://www.nsf.gov/news/news_summ.jsp?cntn_id=131479

- http://phenomena.nationalgeographic.com/2014/07/10/hope-against-the-frogpocalypse-fungus-but-just-a-sliver/
- http://www.nbcnews.com/science/environment/frogs-get-their-shots-vaccination-may-curb-lethal-fungus-n151561
- http://www.smithsonianmag.com/smart-news/frog-toad-can-develop-resistance-deadly-fungus-s-wiping-out-amphibians-worldwide-180952001/
- http://www.abc.net.au/science/articles/2014/07/22/4043589.htm
- http://esciencenews.com/articles/2014/07/09/usf.study.amphibians.can.acquire.resistance.d eadly.fungus
- Front Page of Metro Section of Tampa Tribune: http://tbo.com/news/education/usf-research-may-help-fight-decline-of-the-worlds-amphibians-20140720/
- http://motherboard.vice.com/read/if-we-dont-want-frogs-to-go-extinct-we-might-have-to-vaccinate-them
- http://news.vanderbilt.edu/2014/07/study-finds-hot-frogs-fight-off-fungal-pathogen/
- http://lockerdome.com/6277697911392321/6780046077731860
- http://www.calacademy.org/sciencetoday/fighting-fungus-with-fungus/5516213/
- http://cosmosmagazine.com/features/can-stop-one-deadliest-organisms-nature/
- http://www.iflscience.com/plants-and-animals/immunizing-frogs-against-killer-fungus
- http://ourworld.unu.edu/en/scientists-make-breakthrough-on-deadly-amphibian-fungus
- http://www.the-scientist.com/?articles.view/articleNo/40472/title/Frog-Killing-Fungus-as-Inoculum/
- http://www.sciencedaily.com/releases/2014/07/140709140403.htm
- http://columbiadailyherald.com/news/state/vanderbilt-study-finds-hot-frogs-overcome-fungal-pathogen
- http://www.sciencecodex.com/usf_study_amphibians_can_acquire_resistance_to_deadly_fungus-137231
- http://hosted.usf.edu/ecoimmunology/?p=193
- http://whyfiles.org/2014/amphibian-decline-frogs-fight-back/
- http://www.digitaljournal.com/news/environment/tackling-frog-killing-fungus/article/389371
- http://healthmedicinet.com/news/usf-study-amphibians-can-acquire-resistance-to-deadly-fungus/
- www.newscientist.com/article/mg22329772.800-killer-frog-fungus-could-be-its-own-nemesis.html#.U87_lvldWSo
- http://www.eurekalert.org/pub releases/2014-07/uosf-usa070914.php
- http://www.zmescience.com/research/amphibian-killed-by-fungus-53454/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A%20zmescience%20(ZME%20Science)#!bi5fD4
- http://summitcountyvoice.com/2014/07/10/can-amphibians-bounce-back-from-the-brink/

Featured on "People Behind the Science": http://www.peoplebehindthescience.com/dr-jason-rohr/

Featured on Canadian National Television show 16 x 9 (equivalent to 60 Minutes in the U.S.) and several associated web stories

- http://globalnews.ca/tag/pesticide-peril/
- http://globalnews.ca/news/1248219/is-there-atrazine-in-your-drinking-water/
- http://globalnews.ca/news/1245663/debate-rages-over-health-effects-of-pesticide-atrazine/
- https://www.youtube.com/watch?v=S1wsIMYlc-w&list=UUxUD8G1jO8T-Ef2tuADCZOA

The New Yorker Magazine: Annals of Science Section: "A Valuable Reputation" by Rachel Aviv

• www.newyorker.com/reporting/2014/02/10/140210fa fact aviv?currentPage=8

Environmental Health News: "Special Report: Syngenta's campaign to protect atrazine, discredit critics." By Clare Howard (mentioned in side bar)

http://www.environmentalhealthnews.org/ehs/news/2013/atrazine

Rohr et al. 2013 *Proceedings of the Royal Society of London B* Early-life exposure to an herbicide has enduring effects on pathogen-induced mortality

- http://www.sciencedaily.com/releases/2013/10/131023144608.htm
- http://www.eurekalert.org/pub_releases/2013-10/uosf-eeo102313.php
- http://www.scienceworldreport.com/articles/10427/20131023/herbicide-atrazine-exposure-increases-risk-of-deadly-fungal-disease-for-frogs.htm
- http://www.redorbit.com/news/health/1112984041/early-life-exposure-of-frogs-to-herbicide-increases-mortality-from-fungal-disease/
- http://www.upi.com/Science_News/Blog/2013/10/25/Exposure-to-common-herbicide-couldthreaten-global-amphibian-population/3221382709413/
- http://www.latimes.com/science/sciencenow/la-sci-sn-frog-herbicide-20131025,0,3823014.story#axzz2ilaX9mHy
- http://news.usf.edu/article/templates/?a=5811&z=123

McMahon et al. 2013 *PNAS* Chytrid fungus *Batrachochytrium dendrobatidis* has nonamphibian hosts and releases chemicals that cause pathology in the absence of infection

- http://tbo.com/news/education/usf-scholar-leaps-ahead-on-frog-losses-b82497009z1 (Front page of Tampa Bay Times)
- http://news.usf.edu/article/templates/?a=5061&z=123
- http://phenomena.nationalgeographic.com/2012/12/18/fungus-bd-frog-crayfish-chytrid/
- http://news.nationalgeographic.com/news/2012/121217-chytrid-fungus-amphibian-frogcrayfish-science/
- http://www.newscientist.com/article/dn23012-fungal-frog-killer-hops-into-cravfish.html
- http://thedragonstales.blogspot.com/2012/12/chrytid-fungus-reservoir-discoveredand.html
- http://www.conservationmagazine.org/2012/12/hidden-hosts/

Christmas trees and pesticides

• http://www.sj-r.com/features/x1665846191/Christmas-tree-farm-is-pesticide-free

US Environmental Protection Agency Official Blog "Greenversations": "Climate Change and Amphibian Declines: putting the puzzle pieces together"

http://blog.epa.gov/science/2012/09/climate-change-and-amphibian-declines-putting-the-puzzle-pieces-together/

Fox 13 10PM News Sept. 4, 2012: USF takes closer look at common fungicide

http://www.myfoxtampabay.com/story/19456455/2012/09/04/usf-chlorothalonil-study

NY Times Dot Earth Blog "On Frogs, Fungus, Climate and the New News Process" http://dotearth.blogs.nytimes.com/2012/08/15/on-frogs-fungi-climate-and-headlines/#more-45756

Raffel et al. 2012 *Nature Climate Change* Disease and thermal acclimation in a more variable and unpredictable climate

- http://www.newscientist.com/article/dn22166-changeable-climate-makes-frogs-vulnerable-todisease.html
- http://www.foxnews.com/health/2012/08/13/parasites-may-get-nastier-with-climate-swings/
- http://www.cbc.ca/news/technology/story/2012/08/13/parasites-climate-change-frogs.html
- http://www.forextv.com/forex-news-story/climate-change-may-give-upper-hand-to-parasites-says-study
- http://www.examiner.com/article/climate-change-may-increase-parasite-infections-sayscientists
- http://www.bbc.co.uk/news/science-environment-19199197
- http://news.usf.edu/article/templates/?a=4657&z=123
- http://www.msnbc.msn.com/id/48638352/ns/us_news-environment/
- http://www.reuters.com/article/2012/08/12/us-climate-frogs-idUSBRE87B0HA20120812
- http://www.redorbit.com/news/science/1112674205/temperature-change-parasite-frogs-081312/
- http://news.mongabay.com/2012/0813-hance-climate-change-chytrid.html
- http://topdailybreakingnews.com/parasites-may-get-nastier-with-climate-swings.html
- http://newtampa.patch.com/articles/usf-study-finds-cause-effect-relationship-between-climatechange-frog-population

McMahon et al. 2012 *Ecology Letters* Fungicide-induced declines of freshwater biodiversity modify ecosystem functions and services

- Front Page of Tampa Tribune: http://www2.tbo.com/news/breakingnews/2012/may/22/namaino1-study-uncovers-a-chemical-killer-ar-406427/
- http://www.cas.usf.edu/news/s/317
- Science Daily: http://www.sciencedaily.com/releases/2012/05/120516120146.htm
- WUSF Public Radio University Beat: http://www.wusf.usf.edu/sites/default/files/storyaudio/UB Fungicide Safety 6-11-12.mp3
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