

Devin Kyle Jones

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Professional Positions

- 2020 – Present **Purdue University**
Post-doctoral Researcher
Advisor: Dr. Jason Hoverman
- 2018 - 2020 **University of Notre Dame**
USGS Powell Center Fellow
Post-doctoral Researcher
Advisor: Dr. Jason Rohr
- 2017 - 2018 **University of South Florida**
Post-doctoral Researcher
Advisor: Dr. Jason Rohr

Education

- 2014 – 2017 **Rensselaer Polytechnic Institute**
Ph.D., Biological Sciences
Amphibian responses to anthropogenic and natural stressors
Advisor: Dr. Rick Relyea
- 2012 – 2014 **University of Pittsburgh**
Ph.D. Program, Biological Sciences
Amphibian responses to anthropogenic and natural stressors
Advisor: Dr. Rick Relyea
- 2009 – 2012 **Virginia Polytechnic Institute and State University**
Research Assistant, Fisheries and Wildlife Sciences
- 2004 – 2008 **University of Pittsburgh**
B.S., Biological Sciences

Refereed Publications (1152 citations; h-index = 18; i10-index = 20)

*Authors contributed equally to these manuscripts.

- 1) Lewis, J.L., Agostini, G., **Jones, D.K.**, Relyea, R.A. 2021. Cascading effects of insecticides and road salt on wetland communities. *Environmental Pollution* 272:116006.
- 2) **Jones, D.K.**, Hua, J., Mattes, B.M., Cothran, R.D., Hoverman, J.T., Relyea, R.A. 2021. Predator- and competitor-induced responses in amphibian populations that evolved different levels of pesticide tolerance. *Ecological Applications* 31(4):e02305.
- 3) Lewis, J.L., Borrelli, J.J., **Jones, D.K.**, Relyea, R.A. 2021. Effects of freshwater salinization and biotic stressors on amphibian morphology. *Ichthyology & Herpetology* 109(1):157-164.
- 4) Leggett, S., Borrelli, J.J., **Jones, D.K.**, Relyea, R.A. 2020. The combined effects of road

- salt and biotic stressors on amphibian sex ratios. *Environmental Toxicology and Chemistry* 40(1):231-235.
- 5) Schuler, M.S., Hintz, W.D., **Jones, D.K.**, Mattes, B.M., Stoler, A.B., Relyea, R.A. 2020. The effects of nutrient enrichment and invasive mollusks on freshwater environments. *Ecosphere* 11(10):e03196.
 - 6) **Jones, D.K.***, Davila, D.D.*, Nguyen, K.H., Rohr, J.R. 2020. Effect of agrochemical exposure on *Schistosoma mansoni* cercariae survival and activity. *Environmental Toxicology and Chemistry* 39(7):1421-1428.
 - 7) Blaustein, A.R., **Jones, D.K.**, Urbina, J., Cothran, R.D., Harjoe, C., Mattes, B.M., Buck, J.C., Bendis, R.J., Dang, T.D., Gervasi, S.S., Relyea, R.A. 2020. Effects of invasive larval bullfrogs (*Rana catesbeiana*) on disease transmission, growth and survival in the larvae of native amphibians. *Biological Invasions* 22:1771-1784.
 - 8) Hintz, W.D., Schuler, M.S., **Jones, D.K.**, Coldsnow, K., Stoler, A.B., Relyea, R.A. 2019. Nutrients influence the multi-trophic impacts of an invasive species unaffected by native competitors or predators. *Science of the Total Environment* 694(133704):1-10.
 - 9) Hernández-Gómez, O., Kimble, S.J.A., Hua, J., Wuerthner, V.P., **Jones, D.K.**, Mattes, B.M., Cothran, R.D., Relyea, R.A., Hoverman, J.T. 2019. Local adaptation of the MHC class II β gene in populations wood frogs (*Lithobates sylvaticus*) correlates with proximity to agriculture. *Infection, Genetics and Evolution* 73:197-204.
 - 10) Hintz, W.D., **Jones, D.K.**, Relyea, R.A. 2018. Evolved tolerance to freshwater salinization in zooplankton: life-history trade-offs, cross-tolerance and reducing cascading effects. *Philosophical Transactions of the Royal Society B* 374(1764):e20180012.
 - 11) Lind, L., Schuler, M.S., Hintz, W.D., Stoler, A.B., **Jones, D.K.**, Mattes, B.M., Relyea, R.A. 2018. Salty fertile lakes: How salinization and eutrophication alter the structure of freshwater communities. *Ecosphere* 9(9):e02383.
 - 12) **Jones, D.K.**, Yates, E.K., Mattes, B.M., Hintz, W.D., Schuler, M.S., Relyea, R.A. 2018. Timing and frequency of sublethal exposure modifies the induction and retention of increased insecticide tolerance in wood frogs (*Lithobates sylvaticus*). *Environmental Toxicology and Chemistry* 37(8):2188-2197.
 - 13) **Jones, D.K.**, Hintz, W.D., Schuler, M.S., Yates, E.K., Mattes, B.M., Relyea, R.A. 2017. Inducible tolerance to agrochemicals was paved by evolutionary responses to predators. *Environmental Science and Technology* 51(23):13913-13919.
 - 14) Hua, J., Wuerthner, V.P., **Jones, D.K.**, Mattes, B.M., Cothran, R.D., Relyea, R.A., Hoverman, J.T. 2017. Evolved pesticide tolerance influences susceptibility to parasites in amphibians. *Evolutionary Applications* 10(8):802-812.
 - 15) Stoler, A.B., Mattes, B.M., Hintz, W.D., **Jones, D.K.**, Lind, L., Schuler, M.S., Relyea, R.A. 2017. Effects of a common insecticide on wetland communities with varying quality of leaf litter inputs. *Environmental Pollution* 226:452-462.
 - 16) Stoler, A.B., Hintz, W.D., **Jones, D.K.**, Lind, L.A., Schuler, M.S., Relyea, R.A. 2017. Leaf litter mediates the negative effect of road salt on forested wetland communities. *Freshwater Science* 36(2):415-426.
 - 17) Schuler, M.S., Hintz, W.D., **Jones, D.K.**, Lind, L.A., Mattes, B.M., Stoler, A.B., Sudol, K., Relyea, R.A. 2017. How common road salts and organic additives alter freshwater food webs: in search of safe alternatives.. *Journal of Applied Ecology* 54(5):1353-1361.

- 18) Hintz, W.D., Mattes, B.M., Schuler, M.S., **Jones, D.K.**, Stoler, A.B., Lind, L.A., Relyea, R.A. 2017. Salinization triggers a trophic cascade in experimental freshwater communities with varying food-chain length. *Ecological Applications* 27(3):833-844.
- 19) Stoler, A.B., Walker, B.M., Hintz, W.D., **Jones, D.K.**, Lind, L., Mattes, B.M., Schuler, M.S., Relyea, R.A. 2017. Combined effects of road salt and an insecticide on wetland communities. *Environmental Toxicology and Chemistry* 36(3):771-779.
- 20) **Jones, D.K.**, Dang, T.D., Urbina, J., Bendis, R.J., Buck, J.C., Cothran, R.D., Blaustein, A.R., Relyea, R.A. 2017. Effect of simultaneous amphibian exposure to pesticides and an emerging fungal pathogen, *Batrachochytrium dendrobatidis*. *Environmental Science and Technology* 51(1):671-679.
- 21) **Jones, D.K.**, Mattes, B.M., Hintz, W.D., Schuler, M.S., Stoler, A.B., Lind, L.A., Cooper, R.O., Relyea, R.A. 2017. Investigation of road salts and biotic stressors on freshwater wetland communities. *Environmental Pollution* 221:159-167.
- 22) **Jones, D.K.**, Hua, J., Relyea, R.A. 2016. Effects of endosulfan on freshwater pond communities. *Freshwater Science* 35(1):152-163.
- 23) Hua, J., **Jones, D.K.**, Mattes, B.M., Cothran, R.D., Relyea, R.A., Hoverman, J.T. 2015. Evolved pesticide tolerance in amphibians: Predicting mechanisms based on pesticide novelty and mode of action. *Environmental Pollution* 206:56-63.
- 24) **Jones, D.K.**, Relyea, R.A. 2015. Here today, gone tomorrow: Short-term retention of pesticide-induced tolerance in amphibians. *Environmental Toxicology and Chemistry* 34(10):2295-2301.
- 25) *Hua, J., ***Jones, D.K.**, Mattes, B.M., Cothran, R.D., Relyea, R.A., Hoverman, J.T. 2015. The contribution of phenotypic plasticity to the evolution of insecticide tolerance in amphibian populations. *Evolutionary Applications* 8(6):586-596.
- 26) Hua, J., **Jones, D.K.**, Relyea, R.A. 2014. Induced tolerance from a sublethal insecticide leads to cross-tolerance to other insecticides. *Environmental Science and Technology* 48(7):4078-4085.
- 27) *Keiser, C.N., ***Jones, D.K.**, Modlmeier, A.P., Pruitt, J.N. 2014. Exploring the effects of individual traits and within-colony variation on task differentiation and collective behavior in an arid social spider. *Behavioral Ecology and Sociobiology* 68(5):839-850.
- 28) Keiser, C.N., Modlmeier, A.P., Singh, N., **Jones, D.K.**, Pruitt, J.N. 2014. Exploring how a shift in the physical environment shapes individual and group behavior across two social contexts. *Ethology* 120(8):825-833.
- 29) Hammond, J.I., **Jones, D.K.**, Stephens, P.R., Relyea, R.A. 2012. Phylogeny meets ecotoxicology: Evolutionary patterns of sensitivity to a common insecticide. *Evolutionary Applications* 5(6):593-606.
- 30) **Jones, D.K.**, Hammond, J.I., Relyea, R.A. 2011. Competitive stress can make the herbicide Roundup® more deadly to larval amphibians. *Environmental Toxicology and Chemistry* 2:446-454.
- 31) **Jones, D.K.**, Hammond, J.I., Relyea, R.A. 2010. Roundup® and amphibians: The importance of concentration, application time, and stratification. *Environmental Toxicology and Chemistry* 29:2016-2025.
- 32) **Jones, D.K.**, Hammond, J.I., Relyea, R.A. 2009. Very highly toxic effects of endosulfan across nine species of tadpoles: Lag effects and family-level sensitivity. *Environmental Toxicology and Chemistry* 28:1939-1945.

- 33) Relyea, R. A., **Jones, D.K.** 2009. The toxicity of Roundup Original MAX® to 13 species of larval amphibians. *Environmental Toxicology and Chemistry* 28:2004-2008.

Publications Under Review

- 1) **Jones, D.K.**, Quinlin, K.A., Wigren, M.A., Choi, Y.J., Sepúlveda, M.S., Lee, L.S., Haskins, D.L., Lotufo, G.R., Kennedy, A., May, L., Harmon, A., Biber, T., Melby, N., Chanov, M.K., Hudson, M.L., Key, P.B., Chung, K.W., Moore, D.W., Suski, J.G., Wirth, E.F., Hoverman, J.T. *Accepted pending revisions*. Acute toxicity of 8 aqueous film-forming foams to 14 aquatic species.

Fellowships and Awards

2020	Powell Center Fellowship – United States Geological Survey PIs: Devin K. Jones , Jason R. Rohr, William A. Battaglin, Travis S. Schmidt Title: <i>Analyses of contaminant effects in freshwater systems: synthesizing abiotic and biotic stream datasets for long-term ecological research.</i>	\$147,661.20
2014	Arthur and Barbara Pape Endowment – UPitt’s Pymatuning Lab of Ecology	\$2960
2013	Arthur and Barbara Pape Endowment – UPitt’s Pymatuning Lab of Ecology	\$3086
2010	Graduate Research Development Program Award – Virginia Tech	\$300
2007	NSF REU Supplemental Fellowship – Relyea Lab, University of Pittsburgh	

Presentations

- 2021 Haskins, D.L., **Jones, D.K.**, Quinlin, K.A., Wigren, M.A., Choi, Y.J., Sepúlveda, M.S., Lee, L.S., Hoverman, J.T. Acute toxicity of fluorine-free aqueous film forming foam alternatives to six species of larval amphibians. 42nd Annual Meeting of the Society of Environmental Toxicology and Chemistry, Virtual. November 14-18, 2021
- 2021 **Jones, D.K.**, Haskins, D.L., Choi, Y.J., Sepúlveda, M.S., Lee, L.S., Hoverman, J.T. The relative toxicities of current use aqueous film forming foams and next generation alternatives to aquatic species for informing risk assessment. Center for the Environment’s 2021 Environmental Research Expo, Lafayette, IN. October 7, 2021.
- 2017 **Jones, D.K.**, Mattes, B.M., Yates, E.K., Hintz, W.D., Schuler, M.S., and Relyea, R.A. Predator-induced defenses: an evolutionary origin of modern-day, pesticide-induced tolerance. Annual Meeting of the Ecological Society of America (ESA), Portland, OR. August 6-11, 2017.
- 2015 **Jones, D.K.**, Relyea, R.A. Here today, gone tomorrow: induction and retention of pesticide tolerance in amphibians. 100th Annual Meeting of the Ecological Society of America (ESA), Baltimore, MD. August 9-14, 2015.
- 2014 **Jones, D.K.**, Relyea, R.A. Lasting effects of pesticide exposure: early exposure to a pesticide influences tolerance of later life stages in gray treefrogs (*Hyla versicolor*). Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, TN, July 30-August 3, 2014.
- 2014 **Jones, D.K.**, Relyea, R.A. Lasting effects of pesticide exposure: how early exposure to pesticides influences tolerance of later life stages in gray treefrogs. University of Pittsburgh’s Pymatuning Laboratory of Ecology Seminar Series, Linesville, PA.
- 2013 **Jones, D.K.**, Relyea, R.A. What doesn’t kill you makes you stronger: inducibility of pesticide tolerance in amphibians. University of Pittsburgh’s Pymatuning Laboratory of

- Ecology, Linesville, PA.
- 2010 **Jones, D.K.**, J.I. Hammond, and R.A. Relyea. A deadly duo: How Roundup® application regimes and natural stressors affect amphibian communities. 95th Annual Meeting of the Ecological Society of America (ESA), Pittsburgh, PA. August 1-6, 2010.
- 2007 **Jones, D.K.**, and R.A. Relyea. Amphibians are not Roundup-Ready®. University of Pittsburgh's Science 2007, Pittsburgh, PA. 2007.

Outreach Experience

- 2016 *Adirondack Day 2016*. Assisted RPI researchers and outreach coordinators to highlight the importance of conserving freshwater ecosystems. Hosted and visited by members of the New York State Legislature.
- 2016 *Rensselaer Polytechnic Institute's First Year Experience*. Assisted members of Darrin Fresh Water Institute with outreach designed to showcase ecological monitoring and sampling techniques to incoming first-year students.
- 2013 – 2014 Invited lecture to teach Greenville High School (Greenville, PA) students the effects of pesticides on aquatic communities and the influence of behavioral types on the division of labor within social invertebrate colonies.
- 2009 – 2014 *A day at the Linesville State Fish Hatchery* -Linesville, PA. Assisted the Pymatuning Laboratory of Ecology outreach staff with an educational exhibit to educate the public about local wildlife and their habitats.
- 2008 *Frog, Chemical, Water, You*. Directed by Jennifer Grace, Montana State University (in collaboration with the Smithsonian Institute). A short film to educate the general public about amphibian declines, anthropogenic impacts, and conservation efforts.

Teaching Experience

- Spring 2021 **Guest lecturer, Purdue University**
Disease Ecology – Prepared a guest lecture for ~60 undergraduate students using Camtasia® to discuss how contaminant exposure influences disease dynamics in wildlife.
- Spring 2017 **Guest lecturer, University of South Florida**
Biometry – Conducted two guest lectures introducing ~20 graduate students to ecological statistics and use of R and led one discussion highlighting the importance of experimental design and pseudoreplication.
- Fall 2017 **Guest lecturer, University of South Florida**
Evolution – Created and led guest lecture describing speciation and adaptation for ~40 undergraduate students.
- Fall 2016 & Spring 2017 **Graduate teaching assistant, Rensselaer Polytechnic Institute**
Introduction to Biology & Biology Laboratory – Prepared materials for ~30 undergraduate students each week, including pre-, in-, and post-class assignments, and was responsible for in-lab activities including DNA extraction and qPCR, EPT analysis of freshwater stream macroinvertebrates to estimate stream health, and phylogenetic analysis using morphology, bioinformatics, and LDH gel analysis.

- Spring 2014 **Graduate teaching assistant, University of Pittsburgh**
Genetics – Prepared materials for ~90 undergraduate students in four recitation sections each week, including summary sheets and detailed diagrams for topics covered in lecture, and worksheets to aide in understanding difficult concepts.
- Fall 2013 **Graduate teaching assistant, University of Pittsburgh**
Vertebrate Morphology Laboratory – Prepared various vertebrate specimens for ~ 60 undergraduate students to identify and dissect, and taught students the functions of various structures and body systems, important dissection techniques, and vocabulary associated with morphology and physiology.

Undergraduate Assistants (named individuals represent undergraduate co-authors)

Purdue University – 8 undergraduate assistants

University of South Florida — 8 undergraduate assistants; 1 undergraduate REU and co-author
David Davila

Rensselaer Polytechnic Institute — 6 undergraduate assistants; 2 undergraduate co-authors
Brent Walker
Reilly Cooper (Graduate Research Assistant, University of Nebraska-Lincoln)

University of Pittsburgh (Oakland) — 6 undergraduate assistants; 2 undergraduate co-authors
Erika Yates
Brian Mattes

Professional References

Dr. Jason T. Hoverman
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Dr. Rick A. Relyea
Department of Biological Sciences
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Dr. Jason R. Rohr
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University of Notre Dame
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Dr. Andrew R. Blaustein
Department of Integrative Biology
Oregon State University
blaustea@science.oregonstate.edu