

## CURRICULUM VITAE

**CRAIG ALAN STOCKWELL**

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### **EDUCATION**

**Doctor of Philosophy, Program in Ecology, Evolution & Conservation Biology**  
University of Nevada, Reno, Nevada; Advisor – Dr. Gary Vinyard (deceased)

**Masters of Science, Biology**, Northern Arizona University, Flagstaff, Arizona;  
Advisor – Dr. Gary Bateman

**Bachelor of Arts, Anthropology**, University of Colorado, Boulder, Colorado

### **ACADEMIC EXPERIENCE**

2013 - **James A. Meier Professor** - Department of Biological Sciences, North Dakota State University, Fargo, ND  
2017-2025 **Director, Environmental & Conservation Sciences Graduate Program.**,  
North Dakota State University, Fargo, ND  
2008-2013 **Director, Environmental & Conservation Sciences Graduate Program.**,  
North Dakota State University, Fargo, ND  
2008 **James A. Meier Associate Professor** - Department of Biological Sciences,  
North Dakota State University, Fargo, ND  
2004-2013 **Associate Professor** – Department of Biological Sciences, North Dakota State University, Fargo, ND  
1998-2004 **Assistant Professor** -- Department of Biological Sciences, North Dakota State University, Fargo, ND

### **NDSU SERVICE – BIOLOGICAL SCIENCES DEPARTMENT**

Department of Biological Sciences, Promotion, Tenure & Evaluation Committee  
Committee Member: 2008-2011; Fall 2014-Spring 2017  
Committee Chair: Fall, 2011 – Spring 2012; Fall 2015-Spring 2016  
Department of Biological Sciences, Faculty Affairs Committee, 2012-2013  
Department of Biological Sciences, Graduate Affairs Committee, 2014-2016, 2020-  
Department of Biological Sciences, Outreach Committee, 2016-2017  
Department of Biological Sciences Faculty and Staff Search Committees:  
Ecology Faculty, Chair, 2011-2012  
Plant Conservation Biology Faculty, Chair, 2006-2007  
Biocomplexity Faculty & ECS Director, Chair, 2003-2004  
Physiological Ecologist Faculty, Biological Sciences Department, 2001  
Department of Biological Sciences, Mentoring Group for Tim Grieves with Kendra Greenlee; 2013-2016

**NDSU SERVICE – COLLEGE & UNIVERSITY (continued)**

Led NDSU Biological Sciences Effort to Establish USGS Cooperative Research Unit for North Dakota, 2010-2011; 2020-2022

Hosted consultant from Univ of Nebraska – strategy for obtaining Coop Unit

Organized meetings among NDSU and UND presidents, ND Game & Fish, USGS Northern Prairie Wildlife Research Center

North Dakota was added to the list of states seeking a USGS Coop Unit

Coordinated NDSU Response to US Fish & Wildlife Service Landscape Conservation Cooperative (Future Research opportunities). 2012

Department of Biological Sciences, teaching overloads (uncompensated)

General Biology; 25% of class; fall, 2008; spring and fall, 2009

Senior Seminar: 100% - Spring, 2018

Darwin's Birthday Celebration Panelist, February, 12, 2009.

Advisor – Student Chapter of the Wildlife Society, 1998-2007 and 2011-2013

Advisor – Biological Sciences Graduate Student Association, 2005-2006

Hosted Biological Sciences seminar speakers (~30 total speakers) 1998-present

Biological Sciences Senior Seminar mentor: 2000-2010

Advised undergraduates (30-45 students each year) 1999-2014

Graduate Advisory Committee member up to 10 concurrent committees; 1998-present

College of Science and Mathematics Promotion, Tenure & Evaluation Committee

Member Two Terms: 2005-2007; 2017-2019

Chair: 2006-2007; 2018-2019

College of Science and Mathematics Faculty Senate Representative, 2010-2013

College of Science and Mathematics Representative- NDSU Graduate Council

2016-present

College of Science & Mathematics Faculty-Student Relations Committee, 2001-2007

College of Science & Mathematics Representative, Steinhause-Reinhart Scholarship Selection Committee, 2004-present

Graduate College Appeals Committee

Committee Member: Fall 2016; Committee Chair: Spring 2018

College of Science & Mathematics Evolution Events & PBS Evolution Series Release

Coordinated symposium with PBS TV & Radio; Interviews with Drs. Allan Ashworth, Craig Stockwell and Steve Weeks.

Evolution Symposium – Hosted 5 speakers from Maine, CA, Ohio and ND.

Evolution Video Conference co-Organizer –6 campuses North Dakota - Interviewed Dr. Paul Ewald, October, 2001

Biosystems Research Planning Group Member 2014-2015. Report: Framework for North Dakota Focused Bio-Sciences Research at NDSU.

Provost's Promotion, Tenure and Evaluation Advisory Committee, 2007

College & University Search Committees

Wheat Geneticist Faculty, Plant Sciences Department, 2001

Geosciences Faculty, Geosciences Department, 2002-2003

Insect Ecologist, Entomology Department, 2002

**NDSU SERVICE – ENVIRONMENTAL & CONSERVATION SCIENCES**

Workshop participant; Curricular and Pedagogical Development of a Conservation Biology Program —Reform for the 21st Century – Session I. May, Session II, July 2001 – Results of workshop used in development of ECS Curriculum.

Co-PI IGERT proposal: Establish Conservation Biology Graduate Program, 2001

Developed and submitted proposal for interdisciplinary Graduate Program in Environmental & Conservation Sciences 2001-2004;

Invited and Hosted External Reviewer for proposed ECS Graduate Program, 2003

Environmental & Conservation Sciences Program Director 2008-2013 & 2017-present

Worked with Graduate Dean to secure ECS appropriated funding ~\$135K / year

ECS Fundraising – ECS faculty, students & alumni – NDSU Giving Day, 2017

Major Revision of ECS Curriculum – Spring 2017-Spring 2018

Funded approximately 6-12 ECS graduate fellows each year

Organized competitive small research grant program for ECS students

Organized competitive seed grant program for ECS faculty

Provided small grants to support student travel to professional meetings

Organized and funded annual poster competition

Obtained funds and organized weekly “Greenbag Lunch” Seminar Series

Organized and obtained funds to support periodic public lectures

Mentored two ECS Teaching Postdoctoral Fellows.

Worked with NDSU Upper Administration

Inter-disciplinary Graduate Program Directors meetings 2008-2013, 2017-2018

Graduate Leaders monthly meetings 2010-2013; 2017-present

University Chair’s Council monthly meetings with Provost 2012-2013

Prepared and submitted annual reports to Graduate Dean 2008-2013; 2017-

Prepared program review to NDSU Program Review Committee; 2008 & 2017

Provost’s Office Faculty Misconduct Committee; 2020-2021

ECS Steering Committee – 2004-present – Chair 2008-2013 and 2017-present

Recruited NDSU faculty members to participate in ECS program

Nominated ECS faculty for election to ECS Steering Committee

Worked with committee to evaluate and revise ECS Curriculum

Recruited Environmental Lawyer to teach ECS Environmental Law course

ECS Steering Committee (continued)

Developed Roadmap for combined ECS/NRM program for Provost’s office

ECS Admissions Committee 2008-present, Chair 2008-2013 and 2017-present

Managed Admissions Process in collaboration with Graduate School

Pursued funding from Graduate School to support competitive applicants

ECS Recruiting Committee 2011- present, Chair 2011-2013 and 2017-present

Pursued and obtained competitive funding to support annual recruiting efforts

Personal Recruiting visits 2009-2013: Valley City State University; Minot State University; University of Minnesota, Duluth; Sitting Bull College; Ecological Society of America

Coordinated Recruiting trips by ECS Ambassadors to regional universities; 2017-2018; Bemidji State University; St. Cloud State University; University of St. Thomas; University of Minnesota, Crookston

Hosted Annual Recruiting Fair; 2010, 2011 & 2012

Developed ECS Recruiting Materials including ECS Recruiting Video

**NDSU SERVICE – COLLEGE & UNIVERSITY (continued)**

ECS Recruiting Committee 2011- present, Chair 2011-2013 and 2017-2025

Developed and managed NDSU ECS Website using TYPO-III

Established and advised ECS Graduate Student Ambassador Program 2017-2025

Organized Annual Workshops for ECS students and faculty

2017 – Scientific Communication with Press – May 2017.

2013 – Multivariate Analyses – Aug 12-14, 2013

2012 – Scientific Communication with Press – Jan 5-6, 2012

2011 – Program R – Aug 15-17, 2011

2010 – Program R – May 9-11, 2010

2009 – STELLA – Aug 17-19, 2009

2019 - Structure Decision Making Workshop May 13-14, 2019

2020 - Structure Decision Making Workshop Jan 6-7, 2020

2020 - ECS ByStander Training Workshop –two days, Sepember 2020

2021 - Scientific Communication with Press Workshop March 18, 2021

2023 - Scientific Communication with Press, Jan 6-7, 2023

2024 & 2025 – Mixed Models Summer, 2024 & Summer, 2025

**PROFESSIONAL SERVICE & FUNDRAISING**

NDSU Development Fund Ambassador, 2021 and 2022.

Red River Zoo Board Member 2011-2014 – Fundraising and Zoo Oversight

Red River Zoo Education Committee Chair 2011-2014

Red River Zoo Building Committee 2011-2013

Red River Zoo, Display highlighting NDSU research on northern leopard frogs

Scientific Panelist – Conservation Genetics of Rio Grande Silvery Minnow – Bureau of Reclamation, Albuquerque, NM, 2016-2017

Scientific Panelist – Devils Hole Pupfish Genetics Panel. Organized by National Park Service, Fort Collins, CO, September 2007.

**PROFESSIONAL SERVICE**

Scientific Panelist – Devils Hole Panel Review. Organized by National Park Service, Death Valley, CA, 2007-2009

Workshop Invited Speaker - Assessment and Evaluation of Reintroducing Native Fishes, Oregon Chapter – American Fisheries Society, February 2007

Scientific Advisor - White Sands Pupfish Conservation Team, 1999-2006

Scientific Panelist - Conservation genetics of endangered bull trout, June, 2000

Symposium Lead-off speaker - Evolution on Ecological Time Scales, Ecological Society of America, 2005

Symposium organizer - Translocations as a tool in the conservation of native desert fishes. Desert Fishes Council, Reno, NV, November, 1995

Symposium Organizer - *Evolutionary Ecology of Protected Species: Refuges & Restoration* – Desert Fishes Council, Death Valley, CA., November 2013

Symposium Speaker – *Conservation, biology, genetics and management of freshwater fish in the Southwest and Mexico*. American Fisheries Society, Phoenix, AZ, August 2001

Symposium organizer - Organismal biology of the Northern Plains. North Dakota-South Dakota-Minnesota Academy of Sciences meeting, Moorhead, MN, April 2000.

**EDITORIAL AND REFEREE ACTIVITIES**

Editorial Board Member, *Fishes*, 2022-

Associate editor – *Transactions of the American Fisheries Society*, 2015-2020 & 2001-2003

Assigning editor - *Conservation Biology* 1998, 2002, 2003, 2010, 2012

Referee Activity - (1998-present) – National Science Foundation, Sea Grants; Ambio; Animal Conservation; Behaviour; Biological Invasions; Biodiversity and Distributions; Biology Letters - Royal Society; Conservation Biology; Conservation Genetics; Copeia; Evolution; Evolutionary Applications; Genetica; Great Basin Naturalist; Journal of Animal Ecology; Journal of Applied Ecology; Journal of Freshwater Biology; Journal of Heredity; Molecular Ecology; New Zealand Journal of Marine & Freshwater Research; North American Journal of Fisheries Management; Reviews in Fish Biology and Fisheries; Transactions of the American Fisheries Society; Trends Ecology & Evolution

**AMERICAN FISHERIES SOCIETY SERVICE**

Young Investigator Award Selection Committee, 2016-2024, Chair 2019-2022.

**PROFESSIONAL SOCIETIES**

American Fisheries Society

Society for Conservation Biology

Desert Fishes Council

**COURSES DEVELOPED AND TAUGHT****North Dakota State University**

Biological Research Principles (Graduate)

Conservation Biology (Undergraduate / Graduate)

Advanced Conservation Biology (Graduate)

Wildlife & Fisheries Management Techniques (Undergraduate / Graduate)

General Biology (Undergraduate)

Senior Seminar (Undergraduate)

Biological Sciences Graduate Seminar

Environmental & Conservation Sciences Graduate Seminar

Prairie Ecology – summer field course, Univ. of Nebraska 1999 & 2000

Co-Developed Ph.D. program in Environmental & Conservation Sciences 2002-2003

Workshop participant; Curricular and Pedagogical Development of a Conservation

Biology Program — Reform for the 21st Century – Session I. May,

Session II, July 2001

Biological Sciences Senior Seminar mentor: 2000-2010

Advised undergraduates (30-45 students each year) 1999-2014

Graduate Advisory Committee member (~10 students each year including 2-4 students in my laboratory, see list of graduate students below) 1998-2014

Attended Faculty Institute for Excellence in Learning (FIEL) Luncheons 2001-2002

Participated in *Peer-Review-of- Teaching* Program, 2002-2003

Provided Teaching Evaluations of Biological Sciences Faculty, 2013-present

**GRADUATE STUDENTS**

Stephanie Schaeffer	Wildlife Sciences M.S, NMSU	1999
Mike Collyer	Zoology M.S.	2000

**GRADUATE STUDENTS (continued)**

Kelly Miller	Zoology M.S.	2001
Deborah Harstad	Zoology M.S.	2003
Mike Collyer	Zoology Ph.D.	2003
David Rogowski	Zoology Ph.D.	2004
Jason Vinje	Zoology M.S.	2007
Ali Tackett	Environmental & Conservation Sciences M.S.	2008
David Mushet	Environmental & Conservation Sciences Ph.D.	2010
Sujan Henkanaththegedara	Environmental & Conservation Sciences Ph.D.	2012
Brandon Kowalski	Environmental & Conservation Sciences M.S.	2012
Justin Fisher	Environmental & Conservation Sciences Ph.D.	2015
Kyle McLean	Environmental & Conservation Sciences M.S.	2015
Vanessa Aparacio	Environmental & Conservation Sciences	
Shawn Goodchild	Environmental & Conservation Sciences Ph.D.	2016
Madison Snider	Environmental & Conservation Sciences M.S.	2019
Brandon Paulson	Environmental & Conservation Sciences M.S.	2019
Cody Anderson	Environmental & Conservation Sciences M.S.	2022
Justin Waraniak	Environmental & Conservation Sciences Ph.D.	2023
Kui Hu (co-advised)	Environmental & Conservation Sciences Ph.D.	2023
Molly Johnson	Environmental & Conservation Sciences M.S.	2025
Bridger Scraper	Environmental & Conservation Sciences M.S.	2026

**POSTDOCTORAL RESEARCHERS / COLLABORATORS/ TECHNICIAN**

Dr. Sujan Henkanaththegedara	Conservation Ecology 2012-2013
Dr. Kevin Purcell	Conservation Genetics 2009-2011
Dr. Yongjiu Chen	Native fish conservation and genetics 2006-2008
Dr. Jeffrey Heilveil	Pupfish conservation and genetics 2005-2006
Mr. David Layfield	Native fish conservation genetics 2001-2004
Dr. Alec Lackmann	Conservation Ecology 2019-2020

**UNDERGRADUATE RESEARCH EXPERIENCE**

Mr. Troy Noraker	Pupfish Life history Research	1998
Mr. Cody Hertz	Pupfish Life history Research	1998
Mr. Noah Johnson	Mosquitofish Life history Research	1998
Mr. Jeremy Alm	Pupfish Life history Research	1999
Ms. Kelly Johnson; Castle Award	Conservation Genetics Research	1999
Mr. Jeff Sell; McNair Award	Pupfish Parasitism Research	2000
Mr. Thor Eppler	Pupfish Life history Research	2000
Mr. Scott Ralston	Pupfish Life history Research	2000
Mr. Dan Moen; NSF EPSCor Award	Pupfish Parasitism Research	2001
Mr. John Bauer	Yellowstone Trout Research	2001
Ms. Tonya Krebs	Zoo Internship	2002
Ms. Sarah Beck	Zoo Internship	2003
Ms. Stephanie Fisher	Zoo Internship	2003
Ms. Renae Williams	Conservation Genetics Research	2006
Ms. Stephanie Fisher	Prairie Dog Research	2004

**UNDERGRADUATE RESEARCH EXPERIENCE (continued)**

Ms. Chelsey Wongjirad	Conservation Genetics Research	2006-2009
Mr. Justin Fisher; Castle Award	Aquatic Ecology Research	2007
Mr. Jesse Amos; Castle Award	Conservation Genetics Research	2007-2010
Mr. Tony Nelson	Conservation Genetics Research	2008
Ms. Cailyn Settemeyer	Zoo Internship	2008
Ms. Bobbi Carpenter	Conservation Genetics Research	2008
Mr. Steven Burdick	Conservation Ecology Research	2009-2010
Mr. Joshua Melhorne	Conservation Ecology Research	2010
Ms. Samantha Skinner, McNair Award	Conservation Genetics Research	2010-2013
Mr. Brady Holt	Conservation Ecology Research	2012-2013
Ms. Andi Puchany	Conservation Ecology Research	2012-2013
Mr. Andrew Wiseman	Conservation Ecology Research	2012-2013
Mr. Andrew Willyard	Conservation Ecology Research	2012-2013
Ms. Natasha Westin	Conservation Ecology Research	2012-2015
Ms. Samantha Kainz	Conservation Ecology Research	2013-2015
Mr. Brian Willet	Conservation Ecology Research	2016
Ms. Sarah Overton	Fisheries Ecology Research	2016-2017
Mr. Zack Anderson, Castle Award	Fisheries Ecology Research	2016-2017
Mr. Brant Gilbertson	Fisheries Ecology Research	2016-2017
Mr. Danial Onstad	Fisheries Ecology Research	2016-2017
Ms. Bailey Gillis	Fisheries Ecology Research	2017-2019
Mr. Storm Kettelhut	Fisheries Ecology Research	2017-2018
Ms. Sydney Johnson	Amphibian Ecology Research	2019
Mr. Aaron Bauer	Fisheries Ecology Research	2019-2020
Ms. Haley Burgart	Fisheries Ecology Research	2020-2020
Ms. Karlee Spartz	Fisheries Behavior Research	2020-2021
Mr. Bridger Scraper	Fisheries Behavior Research	2021-2022
Ms. Alison Guzik	Fisheries Research	2022
Ms. Zoe Keezer	Fisheries Research	2022-2023
Ms. Molly Johnson	Fish Behavior Research	2022
Mr. Michael Warne	Fisheries Research	2023
Mr. Justin Birchill	Fish Behavior Research	2024
Mr. Colter Huseby	Fish Behavior Research	2024
Ms. Piper Zander	Fish Behavior Research	2024-2025
Ms. Zoe Grossnickle	Fish Behavior Research	2024-2025
Ms. Morgan Leblanc	Fisheries Research	2025-2026

**FUNDING (Extramural funding: ~\$1.6 Million)**

2019 - 2024 Influences of Changing Land-cover on amphibian habitat suitability. USGS Northern Prairie Wildlife Research Center - \$48,000.

2016 – 2020 A molecular assessment of biotic connectedness of aquatic systems in the Prairie Pothole region. USGS Northern Prairie Wildlife Research Center – \$165,000. (only \$45,000 was released; EPA program was eliminated)

2012 – 2016 Ecological Responses to Regional Climate Change. USGS Northern Prairie Wildlife Research Center - \$167,700.

**FUNDING (Extramural) continued**

2011 – 2015 Investigation of refugial fish genetic structure and local adaptation for the Pahrump poolfish. Nevada State Wildlife Grant – \$100,000

2010 – 2015 Population status of the Northern Leopard Frog in North Dakota. North Dakota State Wildlife Grant - \$100,000.

2009 - 2013 Reciprocal predation and co-persistence of non-native and native fishes Western National Parks Association - \$14,000

2008-2010 Hybridization of endangered Mohave tui chub and non-native arroyo chub Western National Parks Association - \$7,500

2006-2009 Lake ecology and population dynamics of the Endangered Mohave tui chub (*Siphateles bicolor mohavensis*). National Park Service - \$150,000.

2005-2007 Conserving Integral Units of Chihuahuan Desert Biodiversity. Phase V. Department of Defense Legacy Grant -- \$98,000

2004-2005 Conserving Integral Units of Chihuahuan Desert Biodiversity, Phase IV. Department of Defense Legacy Grant -- \$157,718.

2003-2004 Conserving Integral Units of Chihuahuan Desert Biodiversity, Phase III. Department of Defense Legacy Grant -- \$134,784.

2001-2002 Conserving Integral Units of Chihuahuan Desert Biodiversity, Phase II. Department of Defense Legacy Grant -- \$126,000.

2000-2002 Conserving Integral Units of Chihuahuan Desert Biodiversity-Supplemental Department of Defense Legacy Grant - \$18,364

2000-2001 Conserving Integral Units of Chihuahuan Desert Biodiversity, Phase I. Department of Defense Legacy Grant -- \$87,500.

1995-1998 Population genetic structure and life history of the White Sands pupfish (*Cyprinodon tularosa*). Holloman Air Force Base, NM -- \$200,000.

1991-1992 Rapid evolution in recently established populations of mosquitofish (*G. affinis*). Sigma Xi Scientific Research Society (two grants) -- \$845.00.

1983 Environmental Conservation Fellowship. National Wildlife Federation -- \$10,000

1984-1986 Effects of helicopter overflights on desert bighorn foraging behavior at Grand Canyon National Park. Grand Canyon Natural History Association, Grand Canyon, AZ -- \$13,800.00.

**NDSU INTERNAL GRANTS (~\$294.000)**

2010-2011 Experimental approach to the study of the constraining effects of gene flow on evolutionary divergence. North Dakota EPSCoR - \$24,000.

2002 Automated Sequencing Analysis Facility, ND EPSCoR Infrastructure Improvement Program (IIP) – Equipment Grant. -- \$92,567.58.

2003 Environmental & Conservation Sciences Book Acquisition Grant for NDSU Library. CoPI -- \$4,000.00

2002-2004 Development and application of microsatellites for the genetic management of a protected species, the White Sands pupfish (*Cyprinodon tularosa*). ND EPSCoR – EPA – STAR grant -- \$40,000.00

1999 Molecular assessment of hybridization between western mosquitofish (*Gambusia affinis*) and the Endangered Clear Creek gambusia (*G. heterochir*). NDSU Development Foundation -- \$2,000.00

1998-1999 An experimental assessment of the costs of parasitism in the White Sands pupfish (*Cyprinodon tularosa*). Grant-in-Aid, North Dakota State University, Fargo, ND -- \$12,845.

**NDSU INTERNAL GRANTS (continued)**

1998 Gene Expression and Genome Analysis Center, National Science Foundation.  
EPSCoR. CoPI -- \$32,000.00

1998-2000 Start-up Funds secured by Dr. Will Bleier, Zoology Department Chair, \$87,000.

**PUBLICATIONS**

Heenkenda, E.J., A.N. Black, **C.A. Stockwell**, and J.A. DeWoody. In Review. Temporal Population Genomics in Small, Isolated Populations of Conservation Concern. *Proc. Roy. Soc.* In Review.

Johnson, M.I.M.\*., B.D. Wisenden and **C.A. Stockwell**. In Review. White Sands pupfish retained anti-predator behavior despite extensive period of isolation: Still wary after all these years. *Western North American Naturalist*.

Waraniak, J.M.\*., D.M. Mushet and **C.A. Stockwell**. 2026. Patterns of local adaptation in the northern leopard frog (*Rana pipiens*) from a region undergoing rapid climate and land-use change. *Evolutionary Applications*.

Wisenden, B.D., Eischens K.M., Olivia A. Kosel, O.A., Friesen D.J., Burchill J.A., Bridger J. Scraper, B.J.\*., LeBlanc, M.M., Sekhar, M.M., Johnson, M.I.M\*, Anna M. Johnson, A.M.A., Barashkova, K., Tareski, S.M., Abrahamson, R.L., Harris, K.A., Lueck, P.E., Voxland, J.C. and **C.A. Stockwell**. 2026. Embryonic chemical alarm cues delay time to hatch by embryonic annual killifish (*Nothobranchius*). *Fishes*.

Paulson, B.L.\*., K.D. Guadalupe, S.C. Goodchild and **C.A. Stockwell**. 2025. The combined effects of multiple invasive species on the persistence of experimental populations of imperiled Pahrump Poolfish. *Fishes* 10: 216.

Waraniak J.D.\*., D. L. Rogowski\* and **C.A. Stockwell**. 2025. Trade-offs among life history traits and parasite intensity in the White Sands Pupfish (*Cyprinodon tularosa*). *Environmental Biology of Fishes* 2025: 1-16.

Wisenden, B.D., C.M. Adkins, S.A. Campbell, S. Chakraborty, M.E. Cloutier, A.D. Doebler, K.A. Hanson, L. Hoff, M.I.M. Johnson\*, P.S. Larson, C.M. Lukasik, Z.R. Michaelson, C.A. Middlekauf, T.L. Olson, L.J. Perelman, J.C. Soukup, D.J. Such, K.A.S. Nathen, B.J. Scraper\*, **C. A. Stockwell**, A.K. Sullivan, and S.G. Traband. 2024. When is it safe to go home? Post-predation assessment of risk and safety by individual fathead minnows *Pimephales promelas* when reliable personal information conflicts with uncertain public information. *Behavioral Ecology & Sociobiology* 78:59. <https://doi.org/10.1007/s00265-024-03475-2>

Wisenden, B.D., C.M. Anderson, K.A. Hanson, M.I.M. Johnson\* and **C.A. Stockwell**. 2023. Acquired predator recognition via epidermal alarm cues but not dietary alarm cues by isolated pupfish. *R. Soc. Open Sci.* 10: 230444. <https://doi.org/10.1098/rsos.230444>

Wisenden, B.D., A.A. Anderbrhan, C.M. Anderson\*, et al. M.A. Sekhar,\* B.J. Scraper\* and **C.A. Stockwell**. 2023. Olfactory cues of risk and visual cues of safety interact with sympatry and phylogeny in shaping behavioral responses by littoral fishes. *Behavioral Ecology & Sociobiology* 77(8), 91.

Anderson, C.M.\*., B.D. Wisenden, C.A. Craig, and **C.A. Stockwell**. 2023. Consistent antipredator behavioral responses among populations of the Red River pupfish with disparate predator communities. *Fishes* 8, 313. <https://doi.org/10.3390/fishes8060315>

Stockwell, C.A., M.R. Schmelzer\*, B.E. Gillis\*, C.M. Anderson\* and B.D. Wisenden. 2022. Ignorance is not bliss: Evolutionary naiveté in an endangered desert fish and implications for conservation. *Proceedings of the Royal Society Series B*. 289(1981), 20220752. <https://royalsocietypublishing.org/doi/10.1098/rspb.2022.0752>

**PUBLICATIONS (continued)**

Waraniak, J.M.\* , D.M. Mushet and **C.A. Stockwell**. 2022. Over the hills and through the farms: Land use and topography influence genetic connectivity of northern leopard frog (*Rana pipiens*) in the Prairie Pothole Region. *Landscape Ecology* 37(11), 2877-2893.

Lackmann, A.R., S. Kettelhut\*, B.L. Paulson\*, C.M. Anderson\*, S.C. Goodchild, K.D. Guadalupe and **C.A. Stockwell**. 2021. Age and growth of the endangered goodeid, Pahrump Poolfish (*Empetrichthys latos*), using thin-sectioned otoliths. *North American Journal of Fisheries Management*. DOI: 10.1002/nafm.10677

Pandey, S., **C.A. Stockwell**, M.R. Snider\*, and B.D. Wisenden. 2021. Epidermal club cells in Ostariophysan fishes: a case for ecoimmunological analysis? *International Journal of Molecular Sciences* 22(3), 1440: <https://doi.org/10.3390/ijms22031440>

Paulson, B.L.\* and **C.A. Stockwell**. 2020. Density dependent effects of invasive red swamp crayfish (*Procambarus clarkii*) on experimental populations of the Amargosa pupfish (*Cyprinodon nevadensis amargosae*). *Transactions of the American Fisheries Society* 149: 84-92.

Waraniak, J.M.\* , J.D.L Fisher\*, K. Purcell, D.M. Mushet and **C.A. Stockwell**. 2019. Landscape genetics reveal broad and fine-scale population structure due to landscape features and climate history in the northern leopard frog (*Rana pipiens*) in North Dakota. *Ecology and Evolution* 9:1041-1060.

Glaser, F.L., K.S. Owen, S.M. Henkanaththegedara\*, **C.A. Stockwell** and S.C. Lema. 2017. Complete mitochondrial genome of the endangered Mohave tui chub *Siphateles bicolor mohavensis* (Cypriniformes: Cyprinidae). *Mitochondrial DNA Part B* 2(2):797-799

Jimenez, M., S.C. Goodchild\*, **C. A. Stockwell** and S. C. Lema. 2017. Characterization and phylogenetic analysis of complete mitochondrial genomes for two desert cyprinodontoid fishes: the Pahrump poolfish *Empetrichthys latos* and White River springfish *Crenichthys baileyi*. *Gene* 626: 163-172. <http://dx.doi.org/10.1016/j.gene.2017.05.023>

Heilveil, J. S. and **C. A. Stockwell**. 2017. Genetic signatures of translocations and habitat fragmentation for two evolutionarily significant units of a protected fish species. *Environmental Biology of Fishes* 100:631-638. <https://doi.org/10.1007/s10641-017-0591-4>

Stockwell, C.A., J. D. Fisher\* and K. McLean\*. 2016. Clinal patterns in genetic variation for northern leopard frog (*Rana pipiens*) populations and implications of a changing climate. *Wetlands* 36:437-443.

McLean, K.\* , D. M. Mushet, D. Renton\* and **C. A. Stockwell**. 2016. Aquatic macro-invertebrate communities of prairie pothole lakes and wetlands under a changed change. *Wetlands*. 36:423-435.

McLean, K.\* , D. M. Mushet and **C. A Stockwell**. 2016. From “duck factory” to “fish factory”: climate induced changes in vertebrate communities of prairie pothole wetlands and small lakes. *Wetlands* 36:407-421. doi:10.1007/s13157-016-0847-3

Goodchild, S.C.\* and **C. A. Stockwell**. 2016. An experimental test of novel ecological communities of imperiled and invasive species. *Transactions of the American Fisheries Society* 145:264-268.

McLean, K.\* , D. M. Mushet and **C.A. Stockwell**. 2016. Cannibalistic-morph tiger salamanders in unexpected ecological contexts. *American Midland Naturalist* 175:64-72

Purcell, K. and **C. A. Stockwell**. 2015. Species in a bucket: rapid expansion and genetic structure of an invasive species in New Zealand. *Biological Invasions* 17:625-636.

**Publications (continued)**

Henkanaththegedara, S.M.\* , J. Fisher\*, D. McEwen and **C.A. Stockwell**. 2015. The impacts of recently established fish populations on invertebrate communities in desert springs and potential conflict in setting conservation goals. *Diversity Special Issue Global Freshwater Diversity (invited)*. *Diversity* 7:3-15.

Reed, J.M. and **C. A. Stockwell**. 2014. Evaluating an icon of population persistence: The Devil's Hole pupfish. *Proceedings of Royal Society of London Series B*. 281: 20141648.<http://dx.doi.org/10.1098/rspb.2014.1648>.

Henkanaththegedara, S.M.\* and **C.A. Stockwell**. 2014. Intraguild predation mediates co-existence of native and non-native fish: Insights from a mesocosm experiment. *J. Applied Ecology* 51:1057-1065; doi: 10.1111/1365-2664.12285

Fisher, J. D.\* , D. M. Mushet and **C. A. Stockwell**. 2014. Potential for parasite-induced biases in aquatic invertebrate population studies. *Hydrobiologia* 722:199-204.

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Mushet, D.M., K. McLean\* and **C.A. Stockwell**. 2013. Salamander colonization of chase lake, Stutsman County, North Dakota. *Prairie Naturalist* 45:106-108.

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Purcell, K.M., Ling, N. and **C.A. Stockwell**. 2012. Evaluation of the introduction history and genetic diversity of a serially introduced fish population in New Zealand. *Biological Invasions*. 14:2057-2065; DOI 10.1007/s10530-012-0213-1

Mushet, D.M.\* , N. H. Euliss, Jr., and **C.A. Stockwell**. 2012. Mapping anuran habitat suitability to estimate effects of grassland and wetland conservation programs. *Copeia* 2012: 321–330

Mushet, D.M.\* , N. H. Euliss, Jr., and **C.A. Stockwell**. 2012. Conceptual model to facilitate amphibian conservation in the northern Great Plains. *Great Plains Research* 22:45-58.

Stockwell, C.A., K. M. Purcell, M.L. Collyer\* and J. Janovy. 2011. Effects of salinity on *Physa acuta*, the intermediate host for the parasite *Posthodiplostomum minimum*; implications for the translocation of the protected White Sands pupfish. *Transactions of the American Fisheries Society* 140:1370-1374.

Collyer, M.L.\* , J. S. Heilveil and **C.A. Stockwell**. 2011. Contemporary evolutionary divergence for a protected species following assisted colonization. *PLoS ONE* 6(8): e22310. doi:10.1371/journal.pone.0022310

Henkanaththegedara, S.M.\* and **C.A. Stockwell**. 2011. Melanism in endangered Mohave tui chub *Siphateles bicolor mohavensis* Snyder 1918 (Cypriniformes: Cyprinidae). *Western North American Naturalist* 71:127-130.

Purcell K.M., S. L. Lance, K. L. Jones and **C.A. Stockwell**. 2011. Ten novel microsatellite markers for the western mosquitofish *Gambusia affinis*. *Conservation Genetics Resources* 3:361-363

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Kinnison, M. T., A. P. Hendry and **C.A. Stockwell**. 2007. Contemporary evolution meets conservation biology II. Impediments to integration and application. *Ecological Research* 22:947-954. (Invited)

Collyer, M.L.\*., **C.A. Stockwell**, D. C. Adams and M. H. Reiser. 2007. Unpredictable morphological divergence in refuge populations of a desert fish. *Ecological Research* 22:902-910. (Invited)

Rogowski, D.\*., H. Reiser and **C.A. Stockwell**. 2006. Fish habitat associations in a spatially variable desert stream. *Journal of Fish Biology* 68:1473-1483.

Rogowski, D.\* and **C.A. Stockwell**. 2006a. Parasites and salinity: costly tradeoffs in a threatened species. *Oecologia* 146:615-622.

Rogowski, D.\* and **C.A. Stockwell**. 2006b. Assessment of the potential impacts of exotic species on populations of White Sands pupfish, *Cyprinodon tularosa*. *Biological Invasions* 18:79-87.

Moen, D.S.\* and **C.A. Stockwell**. 2006. Specificity of the monogenean *Gyrodactylus tularosae* Kritsky and Stockwell 2005, to its Natural Host, the White Sands Pupfish (*Cyprinodon tularosa* Miller and Echelle 1975). *Comparative Parasitology* 73:278-281.

Collyer, M.L.\*., J. M. Novak and **C.A. Stockwell**. 2005. Morphological Divergence of Native and Recently Established Populations of White Sands Pupfish (*Cyprinodon tularosa*). *Copeia* 2005:1-11.

Kritsky, D. C. and **C.A. Stockwell**. 2005. New species of *Gyrodactylus* (Monogenoidea, Gyrodactylidae) from the White Sands pupfish, *Cyprinodon tularosa*, in New Mexico. *Southwestern Naturalist* 50:312-317.

Stockwell, C. A. 2004. Conservation biology for biologists. *Conservation Biology* 18:284-285.

Collyer, M.L.\* and **C.A. Stockwell**. 2004. Experimental evidence for costs of parasitism for a threatened species, White Sands pupfish. *Journal of Animal Ecology* 73:821-830.

Iyengar, A., **C. A. Stockwell**, D. Layfield and P. A. Morin. 2004. Characterisation of microsatellite markers in White Sands pupfish (*Cyprinodon tularosa*). *Molecular Ecology Notes* 4:191-193.

Stockwell, C. A. and M. V. Ashley. 2004. Rapid adaptation and conservation. *Conservation Biology* 18:272-273.

Epifanio J., G. Haas, K. Pratt, B. Rieman, P. Spruell, **C.A. Stockwell**, F. Utter and W. Young. 2003. Integrating conservation genetic considerations into conservation planning: a case study of bull trout (*Salvelinus confluentus*) in the Lake Pend Oreille – Lower Clark Fork River System. *Fisheries* 18:10-24.

Stockwell, C. A., A. P. Hendry, and M. T. Kinnison. 2003. Contemporary evolution meets conservation biology. *Trends in Ecology and Evolution* 18:94-101. \*\*\*Thomas Reuters Essential Science Indicators as the **highest cited paper** in the research area of rapid climate change. **Reviewed in Science-Watch as “Fast Moving Front”:**  
<http://sciencewatch.com/dr/fmf/2008/08julfmf/08julfmfStockwl/>

Stockwell, C. A. and P. L. Leberg. 2002. Translocations as a tool in the conservation of native fishes: emerging research directions. *Western North American Naturalist* 62:32-38.

Stockwell, C. A. 2002. Threatened fishes of the world: *Cyprinodon tularosa* Miller & Echelle, 1975 (Cyprinodontidae). *Environmental Biology of Fishes* 63:404

**PUBLICATIONS (continued)**

Hershler, R., H-P. Liu and **C.A. Stockwell**. 2002. *Juturnia*, a new Genus of aquatic Gastropods (Rissooidea: Hydrobiidae) from the North American Southwest: Phylogenetic Relationships and Biogeography. *Proceedings of the Washington Biological Society* 115:171-188.

Stockwell, C. A. and G. L. Vinyard. 2000. Life history variation in recently established populations of western mosquitofish (*Gambusia affinis*). *Western North American Naturalist* 60:273-280.

Stockwell, C. A. and S. C. Weeks. 1999. Translocations and rapid evolutionary responses in recently established populations of the western mosquitofish (*Gambusia affinis*). *Animal Conservation* 2:103-110.

Stockwell, C. A. and M. Mulvey. 1998. Phosphogluconate dehydrogenase polymorphism and salinity in the White Sands pupfish. *Evolution* 52:1856-1860.

Stockwell, C. A., M. Mulvey and A. G. Jones. 1998. Genetic evidence for two evolutionarily significant units of White Sands pupfish. *Animal Conservation* 1:213-226.

Jones, A. G., **C.A. Stockwell**, D. Walker and J. C. Avise. 1998. The molecular basis of a microsatellite null allele from the White Sands pupfish. *Journal of Heredity* 89:339-342.

Stockwell, C. A., M. Mulvey and G. L. Vinyard. 1996. Translocations and the preservation of allelic diversity. *Conservation Biology* 10:1133-1141.

Palmquist, D.E. and C.A. Stockwell. 1995. Covariance analysis with a covariate interaction: an example of a simple linear regression comparison technique. *Proceedings of the 1995 Conference on Applied Statistics in Agriculture*. 1995:20-27.

Stockwell, C. A. 1991. Behavioural reactions of desert bighorn sheep to avian scavengers. *Journal of Zoology (London)* 225:253-256

Stockwell, C. A., G. C. Bateman and J. Berger. 1991. Conflicts in National Parks: A case study of helicopters and bighorn sheep at Grand Canyon. *Biological Conservation* 56:317-328.

**BOOK CHAPTERS / REPORTS**

Stockwell, C. A., M. T. Kinnison, A. P. Hendry and J. Hamilton. 2017 Evolutionary Restoration Ecology. Page 427-454 in D. A. Falk, M. A. Palmer and J. B. Zedler, Editors, ***Foundations of Restoration Ecology***, Island Press, 2<sup>nd</sup> Edition.

Mushet, D. M., M. B. Goldhaber, C. T. Mills, K. I. McLean, V. M. Aparicio, R. B. McCleskey, J. M. Holloway and **C. A. Stockwell**. 2015. Chemical and Biotic Characteristics of Prairie Lakes and Large Wetlands in South-central North Dakota—Effects of a Changing Climate. U.S. Geological Survey Scientific Investigations Report 2015-5126, 55 p., <http://dx.doi.org/10.3133/sir20155126>.

Stockwell, C. A. and S. M. Henkanaththegedara. 2011. Conservation biology of poeciliids. **Invited book chapter**, Editors, I. Schlupp, A. Pilastro and J. Evans, *The evolutionary ecology of the Livebearing Fishes*. University of Chicago Press

Stockwell, C. A. and M. L. Collyer. 2006. Rapid adaptation and conservation. Pages 192-194 in F. Allendorf and G. Luikart, editors, ***Conservation and the Genetics of Populations***. Blackwell Press.

Stockwell, C. A., M. T. Kinnison and A. P. Hendry. 2006. Evolutionary Restoration Ecology. Pages 113-138 in D. A. Falk, M. A. Palmer and J. B. Zedler, Editors, ***Foundations of Restoration Ecology***, Island Press.

Stockwell, C. 1994. The biology of Walker Lake. Report to University of Nevada, Biological Resources Research Center, Reno.

**BOOK CHAPTERS / REPORTS (continued)**

Stockwell, C. A. 1994. Current nomenclature and status of fishes of Nevada. Pages 5-6  
*in I. LaRivers, Fishes and Fisheries of Nevada.* University of Nevada Press, Reno, NV.

**INVITED SEMINARS**

Stockwell, C. A. 1997- present; ~ 25 invited seminars

**SYMPOSIA**

2013 Symposium Organizer - *Evolutionary Ecology of Protected Species: Refuges & Restoration* – Desert Fishes Council, Death Valley, CA.

2005 Symposium Lead-off Speaker - *Evolution on Ecological Time Scales*, Ecological Society of America, Montreal.

2001 Symposium Speaker – *Conservation, biology, genetics and management of freshwater fish in the Southwest and Mexico.* American Fisheries Society, Phoenix, AZ

2000 Symposium Organizer - Organismal biology of the Northern Plains. North Dakota – South Dakota-Minnesota Academy of Sciences meeting, Moorhead, MN

1995 Symposium Organizer - Translocations as a tool in the conservation of native desert fishes. Desert Fishes Council, Reno, NV, November, 1995

**PROFESSIONAL PRESENTATIONS****Desert Fishes Council**

1992 – 2025 - **36** presentations

2003 Graduate student won best presentation

2012 Undergraduate student - Best student poster – including graduate students

2022 Graduate student won Best Poster

**Ecological Society of America**

2013 - **3** presentations

2005 – **1** presentation (**Invited**)

1995 – **1** presentation

**North American Benthological Society**

2006 – **1** presentation

**American Fisheries Society**

2024 - **1** presentation

2023 - **1** presentation

2022 – **1** presentation (Joint Aquatic Sciences Meeting)

2019 - **4** presentations

2015 - **1** presentation

2010 - **2** presentations (Minnesota Chapter)

2008 – **1** presentation (Minnesota Chapter)

2007 – **1** presentation (**Invited**; Oregon Chapter)

2001 – **1** presentation (**Invited**; National Meeting)

1998 – **1** presentation (Dakota; **Best Professional Paper**)

**Society for the study of Evolution**

2008 - **1** presentation

1999 – **1** presentation (**Invited**)

1998 – **1** presentation

1997 – **1** presentation

**PROFESSIONAL PRESENTATIONS (continued)****American Genetics Association**

2021 – 1 presentation

**Society for Conservation Biology**

2022 - 3 presentations

2021 - 1 presentation

2020 - 2 presentations

2014 – 4 presentations

2012 – 4 presentations

2011 – 2 presentations

2008 – 1 presentation

2006 – 1 presentation

2003 – 3 presentations

2000 – 3 presentations (**Student won graduate student competition**)

1991 – 1 presentation

**Society of Wetland Scientists**

2022 - 1 presentation

2017 - 1 presentation (North Central Chapter)

2015 – 1 presentation

2014 – 1 presentation

2013 – 1 presentation

2008 - 1 presentation

2010 - 1 presentation

2011 - 1 presentation

**American Society of Ichthyologists and Herpetologists**

2022 - 1 presentation

2015 – 1 presentation

2011 – 4 presentations

2009 – 1 presentation

2007 – 1 presentation

2002 – 1 presentation

1996 – 1 presentation

**The Wildlife Society**

2020 - 2 presentations (North Dakota Chapter)

2013 – 1 presentation

2013 – 2 presentations (North Dakota; **students best paper & best poster**)2012 - 1 presentation (North Dakota & Minnesota; **student won best paper**)

2011 – 1 presentation (North Dakota)

2010 - 2 presentations (North Dakota)

2009 – 1 presentation (North Dakota)

2002 – 1 presentation

**EcoTAS – Joint meeting of the New Zealand & Australian Ecological Societies**2013 – 1 presentation (**Invited**)

**AWARDS / INVITATIONS / RECOGNITION**

Paul Juell Excellence in Mentoring Award, College of Science and Mathematics, North Dakota State University, 2020

James A. Meier Junior Professorship Award, 2008-2012

Longwood University, Simkins Community Lecture – March 2016

University of Manitoba, George A. Lubinsky Featured Seminar Speaker – invited by UM graduate students, March, 2009

Invited Speaker - Summer School in Conservation Genetics of Marine Organisms, Chioggia Italy, July 2012

**IN THE MEDIA**

**Science News (2022)** <https://www.sciencenews.org/article/pahrump-poolfish-desert-isolation-social-cues-fish-fear>

**NDSU Press Release (2022)** <https://www.ndsu.edu/news/view/detail/69499/>

**Popular Book (2015)** White Sands pupfish research in Stockwell lab focus of chapter in O'Connor, M.R. 2015. Resurrection Science: Conservation, De-extinction and the precarious nature of wild things. New York St. Martins Press. **Chapter 3. Exuberant Evolution in a Desert Fish: Cyprinodon tularosa.** Features Stockwell Lab Research.

**Science (2016)** <http://www.sciencemag.org/news/2016/01/bizarre-desert-dwelling-fish-may-have-evolved-just-couple-hundred-years-ago>

**Science News (2016)** <https://www.sciencenews.org/article/devils-hole-pupfish-may-not-have-been-so-isolated-so-long>

**Discovery News (2016)** [http://news.discovery.com/animals/endangered species/amazing-survival-of-a-diabolical-fish-160126.htm](http://news.discovery.com/animals/endangered-species/amazing-survival-of-a-diabolical-fish-160126.htm)

**Wired (2016)** <http://www.wired.com/2016/05/devils-hole-pupfish-just-cant-catch-break/>

**Discover Magazine (2014)** [http://blogs.discovermagazine.com/science-sushi/2014/09/30/unexceptional-devils-hole-pupfish/#.WmT\\_1KinE2w](http://blogs.discovermagazine.com/science-sushi/2014/09/30/unexceptional-devils-hole-pupfish/#.WmT_1KinE2w)

**Nature News (2014)**

<http://www.nature.com/nature/journal/v513/n7519/full/513462a.html>

**Phys Org (2014)**

<http://phys.org/news/2014-09-biological-sciences-professor-publishes-pupfish.html>

**PLoS Blog (2012) –**

<http://blogs.plos.org/toothandclaw/2012/01/16/the-alicia-patterson-fellowship-and-a-two-minute-interview-with-craig-stockwell/>

**IN THE MEDIA (continued)**

**Earth Times (2011)**

<http://www.earthtimes.org/scitech/evolution-measured-decades-centuries/1366/>

**News Wise (2011)**

<http://www.newswise.com/articles/evolution-not-as-long-as-you-think>

**Phys Org (2011)**

<http://phys.org/news/2011-09-contemporary-evolution-published.html>

**Science Direct (2008)**

Stockwell et al. 2003 paper recognized as one of most cited papers by Science Direct

<http://archive.sciencewatch.com/dr/fmf/2008/08julfmf/08julfmfSockwl/>

**Global Public Media (2008)**

[http://old.globalpublicmedia.com/the\\_rate\\_of\\_evolution\\_an\\_interview\\_with\\_dr\\_craig\\_stowell](http://old.globalpublicmedia.com/the_rate_of_evolution_an_interview_with_dr_craig_stowell)