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Education:

1993-2000 University of Texas at Austin, Ph.D., Zoology. Thesis: The behavioral ecology of visual signaling in swordtails.
1989-1993 Harvard University, A. B. degree *magna cum laude*, biology. Senior thesis, *summa cum laude*.

Positions:

2017- Chair-elect, Doctoral Program in Ecology & Evolutionary Biology, Texas A&M University
2013-date Professor, Department of Biology, Texas A&M University
2013-date President, CICHAZ, A. C.
2005-date Director, Centro de Investigaciones Científicas de las Huastecas "Aguazarca"
2014-date Past Chair, Doctoral Program in Ecology & Evolutionary Biology, Texas A&M University
2011-2014 Chair, Faculty of Ecology & Evolutionary Biology, Texas A&M University
2010-2011 Associate Chair, Faculty of Ecology & Evolutionary Biology, Texas A&M University
2006-date Faculties of Genetics, Neuroscience, Reproductive Biology, and Marine Biology, Texas A&M University
2009-2013 Associate Professor, Department of Biology, Texas A&M University
2006-2009 Assistant Professor, Department of Biology, Texas A&M University
2002-2006 Assistant Professor, Department of Biology, Boston University
2003 Visiting professor, Interuniversity Institute, Eilat, Israel
2000-2002 National Eye Institute postdoctoral fellow, University of California, San Diego.
1998-2000 Graduate research assistant, University of Texas at Austin.
1994-1995 Teaching assistant, University of Texas at Austin.
1994 Assistant researcher, Texas Natural History Collection, Texas Memorial Museum.
1993 Research assistant, Smithsonian Tropical Research Institute, Gamboa, Panama.

Grants:

Current support

National Science Foundation, IOS, "Long-term Research in Environmental Biology (LTREB): Social, environmental, and evolutionary dynamics of replicated hybrid zones in swordtails (Teleostei: *Xiphophorus*) of Mexico's Sierra Madre Oriental", April 2014-April 2019 (renewable through 2024). \$447,948
Cancer Prevention and Research Institute of Texas, "Screening for melanoma genes using natural hybrid incompatibilities ", September 2014-December 2016. \$200,000

Doctoral students' major extramural support

NSF Graduate Research Fellowships (tuition, fees, and stipend for 36 months) to R. Stephen Bovio (2017-2020), Pablo Delclós (2013-2016), Daniel Powell (2013-2016), and co-advisee Molly Schumer (2013-2016).
Fulbright fellowship (tuition, fees, and stipend for 24 months) to Mateo Garcia (2016-2017)/
CONACyT doctoral fellowships (Mexican federal government) to Gastón Jofre and co-advisee Christian Bautista Hernández (tuition, fees, and partial stipend for 60 months).
ANII doctoral fellowship (Uruguayan government) to co-advisee Carlos Passos.
NSF Doctoral Dissertation Improvement Grants (each \$10-15,000 in direct and indirect costs) to Delclós, Schumer, Rongfeng Cui, and Zachary Culumber.

Completed projects

National Science Foundation, IOS, "Planning Grant: Developing a Strategic Plan and Infrastructure Needs Assessment for the CICHAZ Field Station", August 2014-July 2016. \$25,000
TAMU-CONACyT, "Signal costs, signal honesty, and adaptive plasticity: an integrative study in a behavioral model system", November 2013- November 2014, \$25,000.
National Science Foundation, IOS, "Enabling Partnerships to Enable Science (TOOLS): anyFish: a user-friendly software

package for creating realistic animations for animal behavior”, September 2010-August 2014, \$300,000.
 National Science Foundation, IOS, “Mate choice and evolutionary genetics in *Xiphophorus* hybrid zones”, July 2009-June 2013, \$510,000.
 National Science Foundation, IOB, “Recombinant traits and recombinant mating preferences in hybrid zones”, July 2005-March 2009, \$389,283.
 National Institutes of Health, National Research Service Award to postdoctoral fellow Seth Coleman, January 2006-December 2008.
 National Institutes of Health, National Research Service Award (with PI Karen Marchetti), July 2000-June 2002.
 NSF Doctoral Dissertation Improvement Grant, “Geographic variation in sexually-selected trait distributions in the Río Pánuco basin swordtails: the role of predation”, 1997, \$9,400.

Teaching: (* indicates new course developed)

2006- Courses taught, Department of Biology, TAMU.
 *EEBL 608 Behavioral Ecology (starting spring 2016)
 *BIOL 467 Integrative Animal Behavior.
 *BIOL 698 Behavior, Genes, and Evolution (graduate course developed with G. Carney).
 2007 Resource professor, Organization of Tropical Studies graduate field course.
 2002-2005 Courses taught, Department of Biology, Boston University.
 *Analysis in Behavioral Ecology (upper-level undergraduate).
 *Animal Communication (upper-level undergraduate/graduate).
 Tropical Marine Biology (upper-level undergraduate).
 First-year graduate core course.
 2003 Advanced Animal Behavior graduate course, Interuniversity Institute, Eilat, Israel.
 1995 Teaching assistant, Behavioral Ecology course, UT-Austin.
 1994 Teaching assistant, Ichthyology course, UT-Austin.

Honors and awards:

Gruss Lipper Foundation Fellowship, 2003.
 Outstanding Doctoral Dissertation Award, UT Austin, 2000.
 National Research Service Award, NIH, 2000.
 American Livebearer Association research award, 1999.
 National Science Foundation Doctoral Dissertation Improvement Grant, 1997.
 Travel fellowship, Dept. of Zoology, UT Austin, summer 1994, 1995, 1996, 1998, 1999.
 Texas chapter American Fisheries Society Scholarship, 1995.
 University of California Special Regents' Fellowship, 1993 (declined).
 National Science Foundation Predoctoral Fellowship, 1993.
 University Fellowship, UT Austin, 1993.
 NSF RTG Undergraduate Fellowship, UC Davis, 1992.
 National Scholar, Harvard, 1989.

Publications in press or published (advisees: *graduate students, †postdocs, ‡undergraduates):

98. G. G. Rosenthal in press. *Mate Choice: the Evolution of Sexual Decision Making from Microbes to Humans*. Princeton University Press. Publication expected summer 2017.
 97. S.J. Ingley† and G. G. Rosenthal in press. Digest: Mechanisms of assortative mating and ecological speciation. *Evolution*.
 96. L. Chouinard-Thuly, S. Gierzewski*, G. G. Rosenthal, & 13 others in press. Technical and conceptual considerations for using animated stimuli in studies of animal behavior. *Curr. Zool*.
 95. D.L. Powell* & G.G. Rosenthal in press. What artifice can and cannot tell us about animal behavior. *Curr. Zool*.
 94. M. Schumer*, R. Cui*, D. L. Powell*, G. G. Rosenthal, & P. Andolfatto 2016. Ancient hybridization and genomic stabilization in a swordtail fish. *Mol. Ecol.* **25**: 2661–2679.
 93. G. G. Rosenthal 2016. Mate choice: charting desire’s tangled bank. *Current Biology* **26**: R294-R296.

92. R. Cui*, M. Schumer*, & G. G. Rosenthal 2016. Admix'em: A flexible framework for forward-time simulations of hybrid populations with selection and mate choice. *Bioinformatics* **32**: 1103-1105.
91. M. Schumer*, R. Cui*, G. G. Rosenthal, & P. Andolfatto 2016. simMSG: an experimental design tool for high-throughput genotyping of hybrids. *Mol. Ecol. Resources* **16**: 183-192.
90. C. Passos*, B. Tassino, G. G. Rosenthal, & M. Reichard 2015. Reproductive behavior and sexual selection in annual fishes. In *Annual Fishes: Life History Strategy, Diversity, and Evolution*, N. Berois, G. Garcia, R. de Sá eds. CRC press. 201-223.
89. D. N. Orbach*, G. G. Rosenthal, & B. Würsig 2015. Copulation rate declines with mating group size in dusky dolphins (*Lagenorhynchus obscurus*). *Can. J. Zool.* 2015, **93**: 503-507.
88. K. Boulton*, G.G. Rosenthal, A.J. Grimmer, C. A. Walling, A.J. Wilson 2016. Sex-specific plasticity and genotype x sex interactions for age and size of maturity in the sheepshead swordtail, *Xiphophorus birchmanni*. *J. Evol. Biol.* doi: 10.1111/jeb.12814
87. S. J. Ingley*, M. Rahmani Asl*, C. Wu*, R. Cui*, M. Gadelhak*, W. Li*, J. Zhang*, J. Simpson‡, C. Hash, T. Butkowski*, T. Veen, J. B. Johnson*, W. Yan, & G. G. Rosenthal 2015. anyFish 2.0: an open-source software platform to generate and share animated fish models to study behavior. *SoftwareX* **3**: 13-21.
86. M. Schumer*, R. Cui*, G. G. Rosenthal, & P. Andolfatto 2015. Reproductive isolation of hybrid populations driven by genetic incompatibilities. *PLoS Genetics* **11**: e1005041.
85. J. B. Johnson*, Z. W. Culumber*, R. Easterling ‡, & G. G. Rosenthal 2015. Boldness and predator evasion in naturally hybridizing swordtails (Teleostei: *Xiphophorus*). *Curr. Zool.*
84. K. A. Paczolt*, C. N. Passow‡, P. J. Delclos*, H. K. Kindsvater*, A. G. Jones, & G. G. Rosenthal 2015. Multiple mating and reproductive skew in parental and introgressed females of the live-bearing fish *Xiphophorus birchmanni*. *J. Hered.* **106**:57-66.
83. C. Passos*, B. Tassino, F. Reyes, & G. G. Rosenthal 2014. Seasonal variation in female mate choice and operational sex ratio in wild populations of an annual fish, *Austrolebias reicherti*. *PLoS ONE* **9**: e101649.
82. J. B. Johnson*, D. C. Macedo‡, C. N. Passow‡, & G. G. Rosenthal 2014. Sexual ornaments, body morphology, and swimming performance in naturally hybridizing swordtails (Teleostei: *Xiphophorus*). *PLoS One* **9**: e109025.
81. M. Schumer*, R. Cui*, D. L. Powell*, R. Dresner, G. G. Rosenthal, & P. Andolfatto 2014a. High-resolution mapping reveals hundreds of genetic incompatibilities in hybridizing fish species. *eLife* **2014**: 10.7554/eLife.02535.
80. M. Schumer*, G. G. Rosenthal, & P. Andolfatto 2014b. How common is homoploid hybrid speciation? *Evolution* **68**: 1553-1560.
79. Z.W. Culumber*, O.M. Ochoa‡, & G. G. Rosenthal 2014. Assortative mating and the maintenance of population structure in a natural hybrid zone. *Am. Nat.* **184**: 225-232.
78. K. Boulton, A. J. Grimmer, G. G. Rosenthal, C. A. Walling, & A. J. Wilson 2014. How stable are personalities? A multivariate view of behavioural variation over long and short timescales in the sheepshead swordtail, *Xiphophorus birchmanni*. *Behav. Ecol. Sociobiol.* **68**: 791-803.
77. N.L. Ratterman*, G.G. Rosenthal, G.E. Carney, & A.G. Jones 2014. Genetic variation and covariation in male attractiveness and female mating preferences in *Drosophila melanogaster*. *G3: Genes/Genomes/Genetics* **4**: 79-88.
76. C. R. Schacter*, L. B. Albright‡, E. A. Dubofsky‡, J. N. Fitzsimmons‡, R. Focht‡, L. E. Nadler‡, M. Sandercock‡, L. Taylor‡, D. Walfoort‡, T. Whitten‡, L. J. Williams‡, & G. G. Rosenthal 2014. Risk-sensitive resource defense in a territorial reef fish. *Environ. Biol. Fish.* **97**: 813-819.
75. C. Passos*, F. Reyes‡, B. Tassino, G. G. Rosenthal, & A. González 2013. Female annual killifish *Austrolebias reicherti* (Cyprinodontiformes, Rivulidae) attend to male chemical cues. *Ethology* **119**: 891-897.
74. T. Veen‡, S.J. Ingley*, R. Cui*, J. Simpson‡, M. Rahmani Asl*, J. Zhang*, T. Butkowski*, W. Li*, C. Hash, J. B. Johnson, W. Yan, & G. G. Rosenthal 2013. anyFish: open-source software to generate animated fish models for behavioral studies. *Evol. Ecol. Res.* **15**: 361-375.

73. Z.W. Culumber† and G.G. Rosenthal 2013. Mating preferences do not maintain the tailspot polymorphism in the platyfish, *Xiphophorus variatus*. *Behav. Ecol.* **24**: 1286-1291.
72. Z.W. Culumber* & G.G. Rosenthal 2013. Population-level mating patterns and fluctuating asymmetry in swordtail hybrids. *Naturwissenschaften* **100**: 801-804.
71. A.J. Wilson, A. Grimmer, & G. G. Rosenthal 2013. Causes and consequences of contest outcome: aggressiveness, dominance and growth in the sheepshead swordtail, *Xiphophorus birchmanni*. *Behav. Ecol. Sociobiol.* **67**: 1151-1161.
70. G. G. Rosenthal 2013. Editorial: what is it like to be a peahen? *Curr. Zool.* **59**: 180 – 183.
69. R. Cui*, M. Schumer*, K. Kruesi*, R. Walter, P. Andolfatto and G.G. Rosenthal 2013. Phylogenomics reveals extensive reticulate evolution in *Xiphophorus* fishes. *Evolution* **67**: 2166-2179.
68. C. Passos*, B. Tassino, M. Loureiro & G. G. Rosenthal 2013. Intra- and intersexual selection on male body size in the annual killifish *Austrolebias charrua*. *Behavioural Processes* **96**: 20-26.
67. H.K. Kindsvater*, S. Simpson‡, G.G. Rosenthal, & S.H. Alonzo 2013. Male diet, female experience, and female size influence maternal investment in swordtails. *Behav. Ecol.* **24**: 691-697.
66. M. Schumer*, R. Cui*, B. Boussau, R. Walter, G. G. Rosenthal, and P. Andolfatto 2013. An evaluation of the hybrid speciation hypothesis for *Xiphophorus clemenciae* based on whole genome sequences. *Evolution* **67**: 1155–1168.
65. H.K. Kindsvater*, G.G. Rosenthal, & S.H. Alonzo 2012. Maternal size and age shape offspring size in a live-bearing fish, *Xiphophorus birchmanni*. *PLoS One* **7**: e48473.
64. G. G. Rosenthal 2013. Individual mating decisions and hybridization. *J. Evol. Biol* **26**:252-5.
63. Z.W. Culumber*, D.B. Shepard, S.W. Coleman†, G.G. Rosenthal, & M. Tobler† 2012. Physiological adaptation along environmental gradients and replicated hybrid zone structure in swordtails (Teleostei: *Xiphophorus*). *J. Evol. Biol.* **25**: 1800-1814.
62. P.M. Willis*, G.G. Rosenthal, & M.J. Ryan 2012. An indirect cue of predation risk counteracts female preference for conspecifics in a naturally hybridizing fish *Xiphophorus birchmanni*. *PLoS One* **7**: e34802.
61. Verzijden, M.N. †, Z.W. Culumber*, & G.G. Rosenthal 2012. Opposite effects of learning cause asymmetric mate preferences in hybridizing species. *Behav. Ecol.* **23**: 1133-1139.
60. J.A. Klassen*, M.L. Morrison, H.A. Mathewson, G.G. Rosenthal, & R. Neal Wilkins 2012. Canopy characteristics affect reproductive success of golden-cheeked warblers. *Wildlife Society Bulletin* **36**: 54-60.
59. G.G. Rosenthal & D.M. Stuart-Fox 2012. Environmental disturbance and animal communication. In: Behavioural responses to a changing world: mechanisms and consequences, B. B. M. Wong & U. Candolin eds., Oxford University Press. 16-31.
58. K. Kruesi*, G.G. Rosenthal, & G. Alcaraz 2011. Growth and male ornamentation in *Xiphophorus montezumae*. *Marine and Freshwater Behaviour and Physiology* **44**: 159-169.
57. P.M. Willis*, M.J. Ryan, & G.G. Rosenthal 2011. Encounter rates with conspecific males influence female mate choice in a naturally hybridizing fish. *Behav. Ecol.* **22**: 1234-1240.
56. M.N. Verzijden† & G.G. Rosenthal 2011. Effects of sensory modality on learned mate preferences in female swordtails. *Anim. Behav.* **82**: 557-562.
55. G.G. Rosenthal & M.J. Ryan 2011. Conflicting preferences within females: sexual selection versus species recognition. *Biol. Lett.* **7**: 525-527.
54. G.G. Rosenthal, J. N. Fitzsimmons‡, K. K. Woods‡, G. Gerlach & H. S. Fisher 2011. Tactical release of a sexually-selected pheromone in a swordtail fish. *PLoS One* **6**: e16994.
53. Z.W. Culumber*, H. S. Fisher†, M. Tobler†, M. Mateos, P.H. Barber, M. D. Sorenson & G.G. Rosenthal 2011. Replicated hybrid zones of *Xiphophorus* swordtails along an elevational gradient. *Mol. Ecol.* **20**: 342-356.
52. G.G. Rosenthal & F.J. García de León 2011. Speciation and hybridization. In: Ecology and Evolution of Poeciliid Fishes (J. Evans, A. Pilastro, I. Schlupp eds.), University of Chicago Press.
51. G.G. Rosenthal and M.J. Ryan 2010. Multiple visual cues, receiver psychology, and signal evolution in pygmy swordtails. In *Viviparous Fishes II*, M. Uribe Aranzabal and H. Grier eds., New Life Publications, pp. 345-356.
50. G.G. Rosenthal & N.J. Marshall 2011. Communication behaviour: visual signals. In: Encyclopedia of Fish Physiology: From Genome to Environment, Academic Press, vol. 1, pp. 692-698.
49. T. Butkowski*, W. Yan, A. M. Gray‡, R. Cui*, M. N. Verzijden†, & G.G. Rosenthal 2011. Automated interactive video

- playback for studies of animal communication. *J. Vis. Exp.* e2374.
48. G.G. Rosenthal 2010. *Do Fish Feel Pain?* [review] *Q. Rev. Biol.* **85**: 515.
 47. M. Tobler†, Z.W. Culumber*, M. Plath, K.O. Winemiller, & G.G. Rosenthal 2011. An indigenous religious ritual selects for resistance to a toxicant in a livebearing fish. *Biol. Lett.* **7**:229-232.
 46. I. Gomez-Mestre, V.L. Saccoccio, T. Ijima, E.M Collins, G.G. Rosenthal, & K.M. Warkentin 2010. The shape of things to come: linking developmental plasticity to post-metamorphic morphology in anurans. *J. Evol. Biol.* **23**: 1364–1373.
 45. G.G. Rosenthal 2010. Swordtails and platyfishes. *In: Encyclopedia of Animal Behavior*, volume 3, M.D. Breed and J. Moore eds., Oxford, UK: Academic Press, pp. 363-367.
 44. G.G. Rosenthal 2010. Playbacks in behavioral experiments. *In: Breed M.D. and Moore J., (eds.) Encyclopedia of Animal Behavior*, volume 2, Oxford, UK: Academic Press, pp. 745-749.
 43. H.S. Fisher† & G.G. Rosenthal 2010. Relative abundance of *Xiphophorus* fishes and its effect on sexual communication. *Ethology* **116**: 32-38.
 42. M. Dugas* & G.G. Rosenthal 2010. Carotenoid-rich mouth colors influence the conspicuousness of nestling birds. *Behav. Ecol. Sociobiol.* **64**: 455-462.
 41. M. Tobler†, S.W. Coleman†, B.D. Perkins, & G.G. Rosenthal 2010. Reduced opsin gene expression in a cave-dwelling fish. *Biol. Lett.* **6**: 98-101.
 40. S.W. Coleman†, Z.W. Culumber*, A. Meaders‡, J. Henson‡ & G.G. Rosenthal 2009. Inducible molecular defenses, ultraviolet radiation, and melanomagenesis in natural *Xiphophorus* hybrids - a field-based investigation of lab-based cancer models. *Env. Biol. Fish* **86**: 279-284.
 39. H.S. Fisher*, S. Mascuch‡ & G.G. Rosenthal 2009. Multivariate male traits misalign with multivariate female preferences in the swordtail fish, *Xiphophorus birchmanni*. *Anim. Behav.* **78**: 265-269.
 38. N. L. Ratterman*, G.G. Rosenthal, and A. G. Jones 2009. Sex recognition via chemical cues in the sex-role-reversed Gulf pipefish (*Syngnathus scovelli*). *Ethology* **115**: 339-346.
 37. K. Summers, K. Roney, J. da Silva, G. Capraro, B.J. Cuthbertson, S. Kazianis, G.G. Rosenthal, M.J. Ryan, and T.J. McConnell 2009. Divergent patterns of selection on the DAB and DXB MHC Class II loci in *Xiphophorus* fishes. *Genetica* **135**: 379-390.
 36. N. J. Fabian‡, L. B. Albright‡, G. Gerlach, H. S. Fisher*, and G.G. Rosenthal 2007. Humic acid interferes with species recognition in zebrafish (*Danio rerio*). *J. Chem. Ecol.* **33**: 2090-2096.
 35. G.G. Rosenthal 2007. Spatiotemporal aspects of visual signals in animal communication. *Annu. Rev. Ecol. Evol. Syst.* **38**:155-178.
 34. J. Buckingham*, B. B. M. Wong† and G.G. Rosenthal 2007. Shoaling decisions in female swordtails: how do fish gauge group size? *Behaviour* **144**: 1333-1346.
 33. H. S. Fisher* and G.G. Rosenthal 2007. Male swordtails court with an audience in mind. *Biol. Lett.* **3**: 5-7.
 32. S. W. Coleman† and G.G. Rosenthal 2006. Swordtail fry attend to chemical and visual cues in detecting predators and conspecifics. *PLoS One* **1**: e118.
 31. H. S. Fisher* and G.G. Rosenthal 2006. Hungry females show stronger mating preferences. *Behav. Ecol.* **17**: 979-981.
 30. H. S. Fisher* and G.G. Rosenthal 2006. Female swordtail fish use chemical cues to select well-fed mates. *Anim. Behav.* **72**: 721-725.
 29. G.G. Rosenthal and F. J. García de León 2006. Sexual behavior, genes, and evolution in *Xiphophorus*. *Zebrafish* **35**: 85-90.
 28. H. S. Fisher*, B. B. M. Wong†, and G.G. Rosenthal 2006. Alteration of the chemical environment disrupts communication in a freshwater fish. *Proceedings: Biological Sciences* **273**: 1187–1193.
 27. B. B. M. Wong† and G.G. Rosenthal 2006. Female disdain for swords in a swordtail fish. *Am. Nat.* **167**: 136-140.
 26. G.G. Rosenthal and P. Lobel 2005. Communication. *In Behaviour and Physiology of Fish* (vol. 24), K. Sloman, S. Balshine, R. Wilson eds., Academic Press.
 25. G.G. Rosenthal and M.J. Ryan 2005. Assortative preferences for stripe patterns in danios. *Anim. Behav.* **70**: 1063-1066.
 24. B. B. M. Wong†, H. S. Fisher*, and G.G. Rosenthal 2005. Species recognition by male swordtails via chemical cues. *Behav. Ecol.* **16**: 818-822.
 23. B. B. M. Wong†, C. Bibeau‡, K. Bishop‡, and G.G. Rosenthal 2005. Response to perceived predation threat in fiddler crabs: trust thy neighbor as thyself? *Behav. Ecol. Sociobiol.* **58**: 345-350.
 22. N. Shashar, G.G. Rosenthal, T. Caras, S. Manor, and G. Katzir 2005. Species recognition in the blackbordered

- damselfish *Dascyllus marginatus* (Rüppell): an evaluation of computer-animated playback techniques. *J. Exp. Mar. Biol. Ecol.* **318**: 111-118.
21. B. B. M. Wong† and G.G. Rosenthal 2005. Shoal choice in swordtails when preferences conflict. *Ethology* **111**: 179-186.
 20. K. E. Roney, B. J. Cuthbertson, U. B. Godwin, S. Kazianis, L. Della Coletta, G.G. Rosenthal, M.J. Ryan, M. Schmidt, and T. J. McConnell 2004. Alternative splicing of major histocompatibility complex class II DXB transcripts in *Xiphophorus* fishes. *Immunogenetics* **56**: 462-466.
 19. G.G. Rosenthal, A. S. Rand, and M.J. Ryan 2004. The vocal sac as a visual cue in anuran communication: an experimental analysis using video playback. *Anim. Behav.* **68**: 55-58.
 18. E. R. Turnell‡, K. D. Mann‡, G.G. Rosenthal, and G. Gerlach 2003. Mate choice in zebrafish (*Danio rerio*) analyzed with video-stimulus techniques. *Biol. Bull.* **205**: 225-226.
 17. G.G. Rosenthal, X. F. de la Rosa Reyna‡, S. Kazianis, M.J. Stephens, D. C. Morizot, M.J. Ryan, and F. J. García de León 2003. Dissolution of sexual signal complexes in a hybrid zone between the swordtails *Xiphophorus birchmanni* and *Xiphophorus malinche* (Poeciliidae). *Copeia* **2003**: 299-307.
 16. M. E. Cummings, G.G. Rosenthal, and M.J. Ryan 2003. A private ultraviolet channel in visual communication. *Proceedings: Biological Sciences* **270**: 897-904.
 15. J. Kingston‡, G.G. Rosenthal, and M.J. Ryan 2003. The role of sexual selection in maintaining a colour polymorphism in the pygmy swordtail *Xiphophorus pygmaeus*. *Anim. Behav.* **65**: 735-743.
 14. G.G. Rosenthal, M.J. Ryan, and W. E. Wagner, Jr. 2002. Secondary loss of preference for swords in the pygmy swordtail *Xiphophorus nigrensis* (Pisces: Poeciliidae). *Anim. Behav.* **63**: 37-45.
 13. G.G. Rosenthal, T. Y. Flores Martinez‡, F. J. García de León, and M.J. Ryan 2001. Shared preferences by predators and females for male ornaments in swordtails. *Am. Nat.* **158**: 146-154.
 12. M.J. Ryan and G.G. Rosenthal 2001. Variation and selection in swordtails. In *Model Systems in Behavioral Ecology*, L. A. Dugatkin ed., Princeton University Press, 133-148.
 11. G.G. Rosenthal and M.J. Ryan 2000. Visual and acoustic communication in nonhuman animals: a comparison. *J. Biosci.* **25**: 285-290.
 10. R. F. Oliveira, G.G. Rosenthal, I. Schlupp, P. K. McGregor, I. C. Cuthill, J. A. Endler, L. J. Fleishman, J. Zeil, E. Barata, F. Burford, D. Gonçalves, M. Healey, S. Jakobsson, M. D. Jennions, K. E. Körner, L. Lindström, T. Peake, A. Pilastro, D. S. Pope, S. G. B. Roberts, C. Rowe, J. Smith, and J. R. Waas 2000. Considerations on the use of video playbacks as visual stimuli: the Lisbon workshop consensus. *Acta Ethologica* **3**: 61-65.
 9. G.G. Rosenthal 2000. Design considerations and techniques for constructing video stimuli. *Acta Ethol.* **3**: 49-54.
 8. R.F. Oliveira, P. K. McGregor, I. Schlupp, and G.G. Rosenthal 2000. Video playback techniques in behavioural research [editorial]. *Acta Ethologica* **3**: 1.
 7. G.G. Rosenthal and M. R. Servedio 1999. Chase-away sexual selection: resistance to "resistance". *Evolution* **53**: 296-299.
 6. M.J. Ryan, N. M. Kime, and G.G. Rosenthal 1998. Human language and animal communication [commentary]. *Behav. Brain Sci.* **21**, 282-283.
 5. G.G. Rosenthal 1999. Using video playbacks to study sexual selection. *Env. Biol. Fishes* **56**: 307-316.
 4. G.G. Rosenthal and C. S. Evans 1998. Female preference for swords in *Xiphophorus helleri* reflects a bias for large apparent size. *Proc. Natl. Acad. Sci.* **95**: 4431-4436.
 3. D. Clark, J. Macedonia, and G.G. Rosenthal 1997. Testing video playback to lizards in the field. *Copeia* **1997**: 421-423.
 2. G.G. Rosenthal, C. S. Evans, and W. L. Miller 1996. Female preference for a dynamic trait in the green swordtail, *Xiphophorus helleri*. *Anim. Behav.* **51**: 811-820.
 1. M. Kirkpatrick and G.G. Rosenthal 1994. Fearful symmetry [News and Views]. *Nature* **372**: 134-135.135.

Advisees:

Postdoctoral fellows:

- Bob B. M. Wong (Ph. D., Australian National University, 2003), Sir Keith Murdoch Fellow, 2004.
 Seth Coleman (Ph. D., University of Maryland, 2005), NIH NRSA fellow, 2005-2008.
 Heidi Fisher (Ph. D., Boston University, 2006), 2006-2007.
 Machteld Verzijden (Ph.D., Leiden University, 2008), Dutch Government Rubicon Fellow, 2008-2010.
 Palestina Guevara (Ph.D., University of Sheffield, 2009), 2010.
 Michael Tobler (Ph.D., University of Zurich, 2008), Swiss Government postdoctoral fellow, 2008-2011 (co-advised with

Kirk Winemiller).

J. Chris Blazier (Ph.D., University of Texas, 2013), 2014-.

Ph. D. students (*- federal fellowship; †- NSF-DDIG)

Heidi Fisher, Ph.D., May 2006.

Sunny Scobell, Ph.D., November 2011 (co-advised with Adam Jones).

Zachary Culumber†, Ph.D., October 2011.

Nick Ratterman, Ph.D., November 2012 (co-advised with Adam Jones).

J. Bradley Johnson, Ph.D., March 2013.

Rongfeng Cui†, Ph. D., March 2014.

Michelle Ramsey, Ph. D., March 2014.

Melissa Giresi, Ph. D., June 2016.

Pablo Delclós*†, 2011-date.

Daniel Powell*, 2012-date.

Gastón Jofre Rodríguez*, 2012-date.

Christopher Holland, 2014-date.

Mateo Garcia*, 2016-date.

Megan Exnicios, 2016-date.

R. Stephen Bovio*, 2016-date.

Master's students:

Amee Mehta, M. A., June 2004.

Jessica Buckingham, M.A., December 2004.

Carley Schacter, M.A., December 2005.

Zachary Cress, M. S., November 2008.

Chi-Cheng Wat, M.S., May 2009.

Charles Carlson, M.S., May 2011.

Mattie Squire, M.S., May 2015.

Undergraduate theses:

Heather Chance, May 2008.

Ashley Meaders, May 2008.

Courtney Passow, May 2011.

Suzanne Simpson, May 2011.

Alexandra Spahn, May 2012.

Danielle Macedo, May 2013.

Janae Rapp, May 2014.

Mason Matheny, May 2016.

Co-advisees at other institutions:

Molly Schumer, Ph.D. student, Princeton University, 2016 (advisor: Peter Andolfatto).

Christian Bautista Hernández, Ph.D., Universidad Autónoma del Estado de Hidalgo, 2015 (advisor: Scott Monks).

Carlos Passos, Ph.D., Universidad de la República, Uruguay, 2013 (advisor: Marcelo Loureiro).

Alexandra Barbosa, Ph.D., University of Oporto, May 2008.

Christian Bautista H., M. Sc., Universidad Autónoma del Estado de Hidalgo, 2011.

Giorgina Obrist, M. Sc., University of Zurich, November 2004.

Xochitl de la Rosa Reyna, *licenciatura* thesis, Instituto Tecnológico de Ciudad Victoria, 2001.

Tania Flores Martinez, *licenciatura* thesis, Instituto Tecnológico de Ciudad Victoria, 1999.

Jennifer Kingston, undergraduate honors thesis, University of Texas, 2001.

Service:

Treasurer, Animal Behavior Society, 2016-2018.

Associate Editor, *Evolution*, 2016-2018.

Associate Editor, *Behavioral Ecology*, 2009-2013.

Guest editor for special column on "Mate Choice", *Current Zoology*, May 2013.

ABS-IGERT participating faculty and admissions committee, TAMU, 2007-2012; Applied Biodiversity Science Program participating faculty, 2007-date.

Organization of Tropical Studies, resource professor, February 2007.

Public Affairs Chair, Animal Behavior Society, 2006-2009.

Graduate adviser, Boston University Marine Program, 2002-2006.

Meetings and symposia organized:

Jornada de Ciencia y Desarrollo Sustentable, Calnali, Hidalgo, México, 2014, 2015.

Organizer, Annual Boston area Behavior Meeting, Woods Hole, March 2003, May 2004, and April 2005.

“Environmental impacts and behavior” symposium. Conveners: **G.G. Rosenthal** and S. Contreras Balderas. Animal Behavior Society meeting, Oaxaca, Mexico, June 2004.

Workshop on video playback experiments. Conveners: P. McGregor, R. Oliveira, **G.G. Rosenthal**, and I. Schlupp.

Association for the Study of Animal Behaviour, Lisbon, Portugal, July 1999.

Manuscripts refereed: *Acta Ethologica*; *American Journal of Primatology*; *American Naturalist*; *Animal Behaviour*; *Behavioral Ecology*; *Behavioural Ecology and Sociobiology*; *Behaviour*; *Behavioural Brain Research*; *BioEssays*; *Biology Letters*; *BMC Genomics*; *Brain, Behaviour, & Evolution*; *Cell & Tissue Research*; *Copeia*; *Current Biology*; *Ecology*; *Environmental Biology of Fishes*; *Environmental Toxicology*; *Ethology*; *Evolution*; *Evolutionary Ecology*; *Extremophiles*; *Frontiers in Zoology*; *Functional Ecology*; *Genes, Brain, & Behavior*; *Journal of Animal Ecology*; *Journal of Evolutionary Biology*; *Journal of Fish Biology*; *Hormones and Behavior*; *Molecular Ecology Resources*; *Naturwissenschaften*; *Oecologia*; *Philosophical Transactions of the Royal Society*; *Proceedings: Biological Sciences*; *PLoS Biology*; *PLoS One*; *PNAS*; *Quarterly Review of Biology*; *Science*; *Zebrafish*; *Zoologica Scripta*; eight edited books; two book proposals.

Invited presentations:

- TBD, Department of Biology, University of Maryland – College Park, April 2017.
- TBD, Museum of Vertebrate Zoology, University of California – Berkeley, March 2017.
- “Amore ibrido: comportamento e genomica evolutiva nel complesso *Xiphophorus*”. Università degli Studi di Torino, April 2016.
- “‘A taste for the beautiful’: mate choice and the evolutionary importance of genetic exchange”. Darwin Day lecture, Stephen F. Austin State University, Nacogdoches, TX, February 2016.
- “Mate choice and its consequences in hybrid zones”, University of Kentucky, Lexington, September 2015.
- “‘A taste for the beautiful’: mate choice and the evolutionary importance of genetic exchange”. Sam Houston State University, Huntsville, TX, April 2015.
- “*A taste for the beautiful: Darwin y el papel evolutivo de las decisiones de apareamiento*”. Inaugural lecture, Darwin en Morelos, Centro Cultural Amate, Cuernavaca, Mexico, March 2015.
- “Mate choice and its consequences: genomic and behavioral insights from natural hybrid zones”, University of Houston, TX, February 2015.
- “Conducta, genética, y evolución en los pecílidos mexicanos: ‘volver al futuro’”. Symposium on “Genómica de Peces de Agua Dulce de México”, XIV Congreso Nacional y III Simposio Latinoamericano de Ictiología, Morelia, Mexico, November 2014.
- “Mate choice and its consequences in *Xiphophorus* hybrid zones”. IV International Symposium on Viviparous Fishes, Morelia, Mexico, November 2014.
- “Back to the future: contemporary insights on behavior, genes, and evolution in poeciliids”, plenary lecture, 6th Conference of Poeciliid Biologists, Exeter, U.K., September 2014.
- “*Xiphophorus* biotopes in the Sierra Madre Oriental of Mexico”, plenary lecture, VI International Livebearer Weekend, Holbæk, Denmark, May 2014.
- “Mate choice and its consequences”, Darwin Day Lecture, Trinity University, San Antonio, February 2014.
- “Mate-choice mechanisms and the evolutionary process”, Department of Biology, University of Texas – Arlington, September 2013.
- “Mate-choice mechanisms and the evolutionary process”, Department of Ecology & Evolutionary Biology, Princeton University, Princeton, NJ, April 2013.
- “Evolutionary genetics of mate-choice mechanisms”, CBBE annual symposium, University of Texas at Austin, February 2013.
- “Mate choice and its consequences in natural hybrid zones of swordtail fish”, Department of Biology, Baylor University, Waco, TX, January 2012.
- “Mate choice, environmental gradients, and hybrid zone dynamics in a Neotropical freshwater fish”, Department of Ecology & Evolutionary Biology, Tulane University, New Orleans, LA, October 2011.
- “Mate choice and evolutionary genetics in natural hybrid zones of the Neotropical fish *Xiphophorus*”, Oklahoma

State University, Stillwater, OK, September 2011.

- “Mate choice and its consequences in natural hybrid zones”, Department of Biology, University of Pennsylvania, Philadelphia, PA, September 2011.
- “Mate choice, environmental gradients, and hybrid zone dynamics in a Neotropical freshwater fish”, Yale Institute for Biospheric Sciences, Yale University, New Haven, CT, September 2011.
- “Sube como palma, cae como coco: evolución y pérdida de un ornamento bajo selección sexual”, keynote speaker, Annual Fishes Symposium, Universidad de la República, Montevideo, Uruguay, August 2010.
- “Choices and their consequences: communication mechanisms, mating biases, and the evolution of hybrid zones”, Department of Biology, Brigham Young University, February 2010.
- “Choices and their consequences: communication mechanisms, mating biases, and the evolution of hybrid zones”, Max-Planck Institute in Developmental Biology, Tübingen, Germany, October 2009.
- “Choices and their consequences: communication mechanisms, mating biases, and the evolution of hybrid zones”, Department of Biology, University of Houston, September 2009.
- “Mate choice and evolutionary genetics in *Xiphophorus* hybrid zones”, Livebearing Fishes symposium, ASIH meeting, Portland, OR, August 2009.
- “Elección de pareja y genética evolutiva en zonas híbridas de peces dulciacuáticos del género *Xiphophorus*”, Facultad de Ciencias, Universidad de la República, Montevideo, Uruguay, June 2009.
- “Mate choice and evolutionary genetics in hybrid zones”, Sam Houston State University, February 2009.
- Plenary address: “La selección sexual y la evolución de las zonas híbridas.” Spanish and Latin American Ethology Congress, Valencia, Spain, September 2008.
- “Livebearer research in Texas.” American Livebearer Association, San Antonio, May 2008.
- “Behavior and evolutionary genetics in hybrid zones.” Department of Ecology and Evolutionary Biology, Yale University, August 2008.
- “Chemical communication and the signaling environment in swordtails (*Xiphophorus*).” Department of Ecology, Evolution, and Behavior, University of Toronto, October 2007.
- “Chemical communication and the signaling environment in swordtails (*Xiphophorus*).” Neuroscience Graduate Group, University of Texas at Austin, September 2007.
- Keynote address: “Biodiversidad y conservación en los ríos de la Huasteca hidalguense.” I Cervantino Indígena, Calnali, Hidalgo, México, June 2007.
- Keynote address: “Natural hybrids and mate choice in *Xiphophorus*.” American Livebearer Association, Cleveland, May 2007.
- “Asymmetric mating preferences and the evolution of a hybrid zone in *Xiphophorus*.” Department of Biology, Trinity University, San Antonio, February 2007.
- “Asymmetric mating preferences and the evolution of a hybrid zone in *Xiphophorus*.” Department of Biology, Texas State University, November 2006.
- “Asymmetric mating preferences and the evolution of a hybrid zone in *Xiphophorus*.” 2nd International Symposium on Viviparous Fishes, Morelia, Mich., México, November 2006.
- “Evolution of communication in Neotropical fishes.” Texas A&M University-Galveston, September 2006.
- “Asymmetric mating preferences and the evolution of a hybrid zone.” Department of Zoology, University of Oklahoma, September 2006.
- “Asymmetric mating preferences and the evolution of a hybrid zone.” Department of Ecology and Evolution, Rice University, September 2006.
- “Evolución de la comunicación visual en peces arrecifales del Neotrópico.” Centro de Investigaciones Biológicas del Noroeste, La Paz, BCS, México, May 2006.
- “Conducta reproductiva y genética evolutiva en una zona híbrida de peces en la Huasteca hidalguense.” Centro de Investigaciones Biológicas del Noroeste, La Paz, BCS, México, May 2006.
- “Evolution of communication in Neotropical fishes.” Providence College, Rhode Island, December 2005.
- “Evolución y conducta en una zona híbrida de peces en la Huasteca Hidalguense.” Facultad de Ciencias, Universidad Nacional Autónoma de México, November 2005.
- “Evolution of communication in Neotropical fishes.” Department of Biology, University of California – Santa Cruz, November 2005.

- “Conducta reproductiva y genética evolutiva en una zona híbrida de peces en la Huasteca Hidalguense.” Área Académica de Biología, Universidad Autónoma del Estado de Hidalgo, August 2005. “Evolution of visual communication in Neotropical reef fishes.” Division of Integrative Biology, University of Texas, October 2004.
- “Evolution of visual communication in Neotropical reef fishes.” University of Michigan Museum of Zoology, May 2004.
- “Natural and sexual selection on mating traits in swordtails.” University of Michigan, May 2004.
- “Sexual selection in fishes.” Department of Organismal and Evolutionary Biology, Harvard University, March 2004.
- “Integrative biology of visual communication in tropical reef fishes.” Colby College, November 2003.
- “Evolution of visual communication in reef fishes.” Department of Zoology, U. of New Hampshire, October 2003.
- “Mechanisms and evolution of communication in Neotropical fishes.” Center for Genome Research, Harvard University, May 2003.
- “Integrative biology of visual communication in tropical reef fishes.” BEES Program, Univ. of Maryland, May 2003.
- Visual signals and visual preferences in context: the role of the environment in shaping vertebrate communication systems.” Department of Psychology, Stanford University, April 2002.
- “Comunicación visual y el ambiente óptico en peces marinos del Neotrópico.” CICIMAR, La Paz, Baja California Sur, Mexico, September 2001.
- “Visual signals and visual preferences in context: the role of the environment in shaping vertebrate communication systems.” Department of Ecology and Evolutionary Biology, University of California – Irvine, June 2001.
- “Natural and sexual selection on male visual cues in *Xiphophorus*, a Neotropical fish genus.” Scripps Institution of Oceanography, March 2001.
- “Natural and sexual selection on visual traits in a neotropical fish genus.” SUNY – Stony Brook, December 2000.
- “Natural and sexual selection on visual traits in a neotropical fish genus.” Hubbs- Sea World Research Institute scientific lecture series, November 2000.
- “Natural and sexual selection on visual traits in a neotropical fish genus.” Department of Ecology and Evolutionary Biology, University of Arizona, November 2000.
- “Visual signals and visual preferences in context: the role of the environment in shaping vertebrate communication systems.” Department of Ecology and Evolution, University of Chicago.
- “Natural and sexual selection on visual traits in a neotropical fish genus.” Department of Evolution and Ecology, University of California – Davis, November 2000.
- “Natural and sexual selection on visual traits in a neotropical fish genus.” John Emlen lecture in animal behavior, University of Wisconsin – Madison, October 2000.
- “Natural and sexual selection on male traits in a neotropical freshwater fish genus.” School of Biological Science, University of New South Wales, Sydney, Australia, April 2000.
- “Natural and sexual selection on visual signals in swordtails.” Center for Population Biology, University of California, Davis, February 2000.
- “Targeting the non-human demographic: considerations in the design of video stimuli.” Video playback workshop. Conveners: P. McGregor, R. Oliveira, G. Rosenthal, and I. Schlupp. Association for the Study of Animal Behaviour, Lisbon, Portugal, July 1999.
- Keynote address: “The behavioral ecology of visual signaling in the Río Pánuco basin swordtails”, American Livebearer Association, Cleveland, May 1999.
- “Biogeografía y variación fenotípica en los *Xiphophorus* de la cuenca del Pánuco.” National Institute of Fisheries, Mexico City, November 1997.
- “Selección sexual y variación fenotípica en *Xiphophorus* (Poeciliidae).” Universidad Nacional Autónoma de México, Mexico City, November 1997.
- “Chance, necessity, and swordtails: likely selective forces on a sexual communication system.” Department of Biology, University of Pittsburgh, April 1997.
- Visual perception and multiple ornaments: applications of digital playback techniques.” Symposium on video playback techniques. Conveners: A. Kodric-Brown and P. Nicoletto. Ecological and Evolutionary Ethology of Fishes Conference, University of New Mexico, Albuquerque, May 1996.
- “Female preferences and patterns of male trait covariation in swordtails.” CEEB Symposium on Poeciliid Fishes, University of Kentucky, Lexington, KY, March 1996.

- "Visual perception and sexual signals in green swordtails: an analysis using video playbacks." Macquarie University, North Ryde, NSW, Australia, November 1995.

Popular media:

Radio interviews: "Entre nosotros", Radio Tamaulipas, Mexico, February 1998; "Con gusto le canto a Hidalgo", Radio Hidalgo, Mexico, June 2007; "Biased Transmissions", KEOS-Bryan, TX, June 2010; KOOP-Austin, TX, September 2011; Radio Fórmula, Cuernavaca, Mexico, March 2015; IMRyT, Cuernavaca, Mexico, March 2015 [podcast].
Research featured in articles in *New Scientist* (1998), *ScienceNow* (2003, 2010), *Science News* (2004, 2006), *Nature Australia* (2004), *National Geographic* (2005), *Practical Fishkeeper* (2006), *The Wall Street Journal* (2006), *El Sol de Hidalgo* (2006, 2007), *The New York Times* (2006, 2007), *Neuzurcher Zeitung* (2006), *El Colombiano* (2007), *Fox News* (2007, 2010), *MSNBC* (2007, 2010), *Tropical Fish Hobbyist* (2008); *U.S. News and World Report* (2011); *ScienceDaily* (2011,2013); *Science* (2014); *Diario de Morelos* (2015); numerous other websites.