

Curriculum Vitae
Megan D. Gall, Ph.D.

Contact Information:

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 Vassar College
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Educational Background:

2012 Ph.D., Department of Biological Sciences, Purdue University
 Advisor: Dr. Jeffrey R. Lucas

2008 M.S., Biology, California State University Long Beach
 Advisor: Dr. Esteban Fernández-Juricic

2005 B.A., Biology, Pomona College

Professional Appointments:

2020-Present Associate Professor
 Department of Biology, Vassar College

2013-2020 Assistant Professor
 Department of Biology, Vassar College

2012-2013 Post-doctoral Researcher
 Neuroscience Institute, Georgia State University
 P.I.: Dr. Walter Wilczynski

2012 Post-doctoral Researcher
 Department of Biological Sciences, Purdue University
 P.I.: Dr. Jeffrey R. Lucas

Courses Taught:

The Singing Life of Birds (Biology 105, Vassar College)
Introduction to Biological Investigation (Biology 106, Vassar College)
Introduction to Neuroscience and Behavior (Neur 105, Vassar College)
Animal Physiology (Biology 228, Vassar College)
Research Methods in Neuroscience and Behavior (Neur 249, Vassar College)
Sensory Ecology (Biology 375, Vassar College)
Neuroscience and Behavior Seminar (Neuro 301, Vassar College)
Animal Communication (Biology 382, Vassar College)
Biology in Board Games (Biology 393, Intensive Course, Vassar College)

Book Chapters:

Henry, K.S., **Gall, M.D.**, Velez, A., and Lucas, J.R. 2017. Avian auditory processing at four different scales: variation among species, seasons, sexes and individuals. In: Psychological Mechanisms in Animal Communication (M.A. Bee and C.T. Miller, Eds). Springer Handbook of Animal Signals and Communication. Springer-Verlag, New York.

Journal Publications (26):

(† authors made equal contributions, *undergraduate author)

1. *de Koning, M., *Beatini, J.R., Proudfoot, G.A., and **Gall, M.D.** 2020. Hearing in 3D: directional auditory sensitivity of Northern saw-whet owls (*Aegolius acadicus*). Integrative and Comparative Biology. <https://doi.org/10.1093/icb/icaa024>
2. Baugh, A.T.†., Bee, M.A., and **Gall, M.D.**†. 2019. The paradox of hearing at the lek: auditory sensitivity increases after breeding in female gray treefrogs (*Hyla chrysoscelis*). The Journal of Comparative Physiology A: 205:629–639.
3. *Beatini J.R., Proudfoot, G.A., and **Gall, M.D.** 2019. Effects of presentation rate and onset time on auditory brainstem responses in Northern saw-whet owls (*Aegolius acadicus*). Journal of the Acoustical Society of America. 145: 2062-2071.
4. **Gall, M.D.** †, Bee, M.A., and Baugh, A.T.† 2019. The difference a day makes: breeding remodels hearing, hormones and behavior in female Cope's gray treefrogs (*Hyla chrysoscelis*). Hormones and Behavior 108: 62-72
5. *Boycott, T.B., *Gao, J., and **Gall, M.D.** 2019. Deer browsing alters sound propagation in temperate deciduous forests. PLoS One 14: e0211569.

[\[Featured on NPR's Weekend Edition\]](#)

[\[Featured on CBC and PRI's As It Happens \(interview starts around the 39-minute mark\)\]](#)

[\[Featured on Scientific American's 60-second Science\]](#)

[\[Featured in The Scientist\]](#)

6. *Beatini, J.R., Proudfoot, G.A., and **Gall, M.D.** 2018. Frequency sensitivity in Northern saw-whet owls (*Aegolius acadicus*). *Journal of Comparative Physiology A* 204: 145-154. <https://doi.org/10.1007/s00359-017-1216-2>.
7. *Damsky, J.D. and **Gall, M.D.** 2017. Anthropogenic noise reduces approach of Black-capped Chickadees and Tufted Titmice to Tufted Titmouse mobbing calls. *The Condor* 119: 26-33.
8. **Gall, M.D.** and Wilczynski, W. 2016. The effects of call-like masking diminish after nightly exposure to conspecific choruses in green treefrogs (*Hyla cinerea*). *Journal of Experimental Biology* 219: 1295-1302.
9. *Wong, A. and **Gall, M.D.** 2015. Frequency sensitivity in the auditory periphery of male and female black-capped chickadees (*Poecile atricapillus*). *Zoology* 118: 357-363.
10. **Gall, M.D.** and Wilczynski, W. 2015. Prior experience with conspecific signals alters peripheral frequency sensitivity. *Proceedings of the Royal Society B*, 282: 20150749. (Featured in the magazine: *Natural History*).
11. Velez, A., **Gall, M.D.**, and Lucas, J.R. 2015. Seasonal plasticity in auditory processing of the envelope and temporal fine structure of sounds in three songbirds. *Animal Behaviour*, 103: 53-63.
12. Velez, A., **Gall, M.D.**, *Fu, J., and Lucas, J.R. 2015. Song structure, not high-frequency song content, determines high-frequency auditory sensitivity in nine species of New World sparrows (Passeriformes: Emberizidae). *Functional Ecology*, 29:487-497. DOI: 10.1111/1365-2435.12352
13. **Gall, M.D.** and Wilczynski, W. 2014. Prior experience with conspecific signals enhances auditory midbrain responsiveness to conspecific vocalizations. *Journal of Experimental Biology* 217: 1977-1982. (Selected by the editor for "Inside JEB").
14. **Gall, M.D.**, Salameh, T.S. and Lucas, J.R. 2013. Songbird frequency selectivity and temporal resolution vary with sex and season. *Proceedings of the Royal Society B* 20122296
15. **Gall, M.D.**, *Hough, L., and Fernández-Juricic, E. 2013. Age-related habitat preference and foraging behavior in the black phoebe (*Sayornis nigricans*). *Southwestern Naturalist* 58: 41-49.
16. **Gall, M.D.**, *Bestrom, E., Ronald, K.L., and Lucas, J.R. 2012. Effects of habitat and urbanization on the active space of brown-headed cowbird song. *Journal of the Acoustical Society of America* 132: 4053-4062.
17. **Gall, M.D.**, Brierley, L.B, and Lucas, J.R. 2012. The sender-receiver matching

- hypothesis: support from the peripheral coding of acoustic features in songbirds. *Journal of Experimental Biology* 215: 3742-3751.
18. **Gall, M.D.**, Henry, K.S., and Lucas, J.R. 2012. Two measures of temporal resolution in brown-headed cowbirds (*Molothrus ater*). *Journal of Comparative Physiology A* 198: 61-68.
 19. **Gall, M.D.**, Brierley, L.B., and Lucas, J.R. 2011. Species and sex effects on auditory processing in brown-headed cowbirds and red-winged blackbirds. *Animal Behaviour* 81: 973-982.
 20. Henry, K.S., **Gall, M.D.**, Bidelman, G., and Lucas, J.R. 2011. Songbirds trade off auditory frequency resolution and temporal resolution. *Journal of Comparative Physiology A* 197: 351-359.
 21. Fernández-Juricic, E.J., **Gall, M.D.**, Dolan, T., O'Rourke, C., *Thomas, S., and *Lynch, J.R. 2011. Visual systems and vigilance behavior of two ground foraging avian prey species: white-crowned sparrows and California towhees. *Animal Behaviour* 81: 705-713.
 22. Wang, Y., *Mijares, M., **Gall, M.D.**, Turan T., Javier, A., Bornemann, D.J., Mange, K. and Warrior, R. 2010. Drosophila variable nurse cells encodes Arrest defective 1 (Ard1), the catalytic subunit of the major N-terminal acetyltransferase complex. *Developmental Dynamics* 239: 2813-2827.
 23. **Gall, M.D.** and Lucas, J.R. 2010. Sex differences in auditory filters of brown-headed cowbirds (*Molothrus ater*). *Journal of Comparative Physiology A* 196: 559-567.
 24. **Gall, M.D.** and Fernández-Juricic, E. 2010. Visual fields, eye movements, and scanning behavior of a sit-and-wait predator, the black phoebe (*Sayornis nigricans*). *Journal of Comparative Physiology A* 196: 15-22.
 25. **Gall, M.D.** and Fernández-Juricic, E. 2009. Visual and physical prey availability alters perch selection and search effort in a sit-and-wait predator, the Black Phoebe (*Sayornis nigricans*). *Condor* 111: 150-158.
 26. Fernández-Juricic, E.J., **Gall, M.D.**, Dolan, T., Tisdale, V., and Martin, G.R. 2008. The visual fields of two ground foragers, House Finches and House Sparrows, allow for simultaneous foraging and scanning. *Ibis* 150: 779-787.

Invited Seminars:

- Gall, M.D.**, *de Koning, M. *Beatini, J.R., and Proudfoot, G.A. 2020. Directional sensitivity of Northern saw-whet owls: implications for prey and wing sound detection. Invited Talk (symposium). Society for Integrative and Comparative Biology Annual Meeting. Austin, TX.

Gall, M.D. Anurans, Aves, and Auditory Processing. Keynote Address at the Hudson Valley Life Sciences Group Spring Research Symposium. Poughkeepsie, NY. May 2018.

Gall, M.D. Auditory Processing and Acoustic Signals: Anurans, Aves, and Anthropogenic Noise. Department of Biological Sciences, Purdue University, West Lafayette, IN. January 2018.

Gall, M.D. Experience with social communication influences auditory reception in green tree frogs. Ecology, Evolution and Behavior Program, Indiana University, Bloomington. January 2017.

Gall, M.D. Experience with social communication influences auditory reception in green tree frogs. Department of Biology, Pace University. November 2016.

Gall, M.D. Experience with social communication influences auditory reception in green tree frogs. EEB Graduate Program, SUNY Buffalo. September 2016.

Gall, M.D. Sex, season and social signals: sources of variation in auditory processing. Department of Biology, Hofstra University. November 2015.

Gall, M.D. The Role of Sex in Animal Communication. Women's Studies First Friday, Vassar College. March, 2015.

Gall, M.D. How do ecology, evolution and behavior influence the reception of acoustic information in songbirds and frogs? Neuroscience Institute, Georgia State University. Atlanta, GA. June 2014.

Gall, M.D., Lucas, J.R. and Wilczynski, W. Sources of variation in auditory processing. Sensory biology and sexual selection symposium. 50th Annual Meeting of the Animal Behavior Society. University of Colorado, Boulder. August 2013.

Seminars and Submitted Abstracts (Conference Presentations):

(* indicates undergraduate authors)

Gall, M.D., *de Koning, M., *Matthews, M., *Beatini, J.R., Proudfoot, G.A. Morphological drivers of Northern saw-whet owl directional auditory sensitivity. [Talk] Society for Integrative and Comparative Biology Meeting. Tampa, FL. January, 2019.

Gall, M.D., *de Koning, M., *Beatini, J.R., Proudfoot, G.A. Hearing in 3D: auditory processing and implications for sound localization in Northern saw-whet owls. [Talk]. 55th Annual Conference of the Animal Behavior Society. Milwaukee, WI. August, 2018.

Gall, M.D., Baugh A.T., and Bee, M.A. The difference a day makes: oviposition influences endocrine state and peripheral auditory processing. [Poster] International Congress of Neuroethology. Brisbane, Australia. July, 2018.

- Gall, M.D.**, Baugh A.T., and Bee, M.A. The difference a day makes: effects of oviposition on peripheral auditory sensitivity. [Talk] Society for Integrative and Comparative Biology Meeting. San Francisco, CA. January, 2018.
- *Beatini, J.R., Proudfoot, G.A., and **Gall, M.D.** Effects of Presentation Rate and Onset Time on Auditory Brainstem Responses in Northern Saw-whet Owls. [Talk] Society for Integrative and Comparative Biology Meeting. San Francisco, CA. January, 2018.
- Gall, M.D.** Experience with social communication influences auditory reception in green tree frogs. [Talk] Biology Department, Vassar College. September 2016.
- Gall, M.D.** and Wilczynski, W. Effects of call-like masking diminish after social stimulus exposure. [Talk] 53rd Annual Conference of the Animal Behavior Society. Columbia, MO. July, 2016.
- *Boycott, T.B., *Gao, J., and **Gall, M.D.** Effects of deer browsing on sound propagation. [Poster] 53rd Annual Conference of the Animal Behavior Society. Columbia, MO. July, 2016.
- *Beatini, J. Proudfoot, G., and **Gall, M.D.** Frequency sensitivity of Northern Saw-whet Owls [Poster] 53rd Annual Conference of the Animal Behavior Society. Columbia, MO. July, 2016.
- Gall, M.D.** and Wilczynski, W. Where does socially-induced plasticity emerge in the auditory system? [Talk] 52nd Annual Conference of the Animal Behavior Society. Anchorage, AK. June, 2015.
- Gall, M.D.** and Wilczynski, W. Where does socially-induced plasticity emerge in the auditory system? [Talk] 51st Annual Conference of the Animal Behavior Society. Princeton, NJ. August, 2014.
- Gall, M.D.** and Wilczynski, W. Prior experience with conspecific signals enhances auditory midbrain responsiveness to conspecific vocalizations. [Talk] Society for Integrative and Comparative Biology Meeting. Austin, TX. January 2014.
- Gall, M.D.** Do you hear what I hear? Effects of species, sex, and season on auditory processing in songbirds. [Talk] Vassar College. November, 2012.
- Gall, M.D.** Do you hear what I hear? Effects of species, sex, and season on auditory processing in songbirds. [Talk] University of North Florida. November, 2012.
- Gall, M.D.** and Lucas, J.R. Songbird auditory processing varies with sex and season. [Talk]. 49th Annual Meeting of the Animal Behavior Society. University of New Mexico, Albuquerque, NM. June 2012.

- Gall, M.D.** and Lucas, J.R. Songbird auditory processing varies with sex and season. [Talk]. Center for the Integrative Study of Animal Behavior. Indiana University, Bloomington, IN. April 2012.
- Gall, M.D.** and Lucas, J.R. Effects of sex and reproductive status on the frequency-temporal resolution trade-off. [Poster]. 35th Midwinter Meeting of the Association for Research in Otolaryngology. San Deigo, CA. February, 2012.
- Gall, M.D.**, *Bestrom, E., Ronald, K.L., *Brierley, B., Littell, M.D., and Lucas, J.R. Variation in the propagation and active space of brown-headed cowbird song across habitats. [Talk]. EcoLunch: Ecology Seminar Series, Purdue University. October 2011.
- Gall, M.D.**, Brierley, L.E. and Lucas, J.R. The sender-receiver matching hypothesis in two songbirds: implications for active listening space. [Talk]. Joint meeting of the Animal Behavior Society and the International Ethological Conference. Indiana University, Bloomington, IN. July 2011.
- Gall, M.D.**, Henry, K.S., Brierley, L.E., and Lucas, J.R. The effects of species, sex, season and hormones on auditory processing in songbirds. Columbia University, New York, NY. June 2011.
- Gall, M.D.**, Henry, K.S., Brierley, L.E., and Lucas, J.R. The effects of species, sex, season and hormones on auditory processing in songbirds. Cornell University, Ithaca, NY. June 2011.
- Gall, M.D.**, Henry, K.S., Brierley, L.E., and Lucas, J.R. The effects of species, sex, season and hormones on auditory processing in songbirds. Georgia State University, Atlanta, GA. May 2011.
- Gall, M.D.**, Brierley, L.E. and Lucas, J.R. Species and sex effects on auditory processing in brown-headed cowbirds and red-winged blackbirds. [Talk]. Center for the Integrative Study of Animal Behavior. Indiana University, Bloomington, IN. April 2011.
- Gall, M.D.** and Lucas, J.R. Can you DDIG it? The physiological mechanisms regulating peripheral auditory processing. [Talk]. EcoLunch: Ecology Seminar Series, Purdue University. September 2010.
- Gall, M.D.**, Henry, K.S. and Lucas, J.R. The acoustic structure-function hypothesis: the receiver perspective. [Talk]. 47th Annual Meeting of the Animal Behavior Society. College of William and Mary, Williamsburg, VA. July 2010.
- Gall, M.D.**, Henry, K.S. and Lucas, J.R. The acoustic structure-function hypothesis: the receiver perspective. [Talk]. EcoLunch: Ecology Seminar Series, Purdue University. April 2010.

- Gall, M.D.** and Lucas, J.R. Peripheral auditory processing in an obligate avian brood parasite: sex differences and implications for host recognition. [Talk]. EcoLunch: Ecology Seminar Series, Purdue University. October 2009.
- Gall, M.D.** and Lucas, J.R. Auditory responses to tonebursts and amplitude modulation in the brown-headed cowbird (*Molothrus ater*) and red-winged blackbird (*Agelaius phoeniceus*). [Talk]. American Ornithologists' Union Meeting, University of Pennsylvania. August 2009.
- Gall, M.D.** and Lucas, J.R. Minding the gap: Avian brain size and success in fragmented habitats. [Talk]. Center for the Integrative Study of Animal Behavior. Indiana University, Bloomington. April 2009.
- Gall, M.D.** and Lucas, J.R. Minding the gap: Avian brain size and success in fragmented habitats. [Talk]. EcoLunch: Ecology Seminar Series, Purdue University. April 2009.
- Gall, M.D.** and Fernández-Juricic, E.J. Food searching in the Black Phoebe (*Sayornis nigricans*): the effects of light environment, habitat structure and age. [Talk]. EcoLunch: Ecology Seminar Series, Purdue University. November 2008.
- Gall, M.D.** and Fernández-Juricic, E.J. Habitat structure and light environment alter perch selection and search effort in a sit-and-wait predator. [Poster]. International Society of Behavioral Ecology, Cornell University. August 2008.
- Gall, M.D.** and Fernández-Juricic, E.J. Habitat structure and light environment alter perch selection and search effort in a sit-and-wait predator. [Talk]. Southern California Animal Behavior Symposium, California State University Long Beach. February 2008.
- Gall, M.D.**, Dolan, T., Tisdale, V and Fernández-Juricic, E.J. Visual fields of House Finches (*Carpodacus mexicanus*) and House Sparrows (*Passer domesticus*) allow for simultaneous foraging and scanning. [Poster]. Southern California Animal Behavior Symposium, UC Santa Barbara. February 2007.

Undergraduate Research Mentorship:

Vassar College: Arick Wong, Alison Ehrlich, Aaron Kim, Tymon Dickson, Jacob Damsky, Tim Boycott, Jeff Gerwin, Julia Beatini, Katie Nordstrom, Alex Koo, Jing Yi Gao, Do Park, Carly Barbera, Aaron Harvey, Nicholas Fancher, Karla Zabala, Emma Kline, Katie Hoots, Megan de Koning, Margaret Matthews, Jake Korbin, Chris McCann, Sandy Jiang, Jaein Kim.

Graduate and Post-doctoral Institutions: Ernesto Lujan, Gilbert Trevino, Michelle Mijares, Kristen Malabanan, Margie Wineberger, José Caprile, Sarah Thomas, Leah Hough, Gwen Adame, Agustin Odeja, Veronica Ortiz, Samantha Merrick, Eric Bestrom, Brittany Brierley, Michael Littell, Matt Foertsch, Trey Smith, Joseph Sparks, Nascimento Matara, Sonji Colon

Departmental and College Service:

2017	Vassar College CARF
2017-2018	Biology Department Scheduling Committee
2017	Vassar College Faculty Policy and Conference Committee
2016-2017	Biology Department Budget Committee
2016	Neuroscience and Behavior Assessment Sub-committee
2016-2019	Vassar College House Fellow
2015-2017	Vassar College Fellowship Committee
2015	Search Committee, Public Health Biologist
2015	Search Committee (Visiting Asst. Professor)
2014-present	Biology Department Seminar Scheduling (chair)
2014-2016	Biology Curriculum Committee, Vassar College (Chair 2015-2016)
2013-present	Farm Oversight Committee

Research Grants

2019	Vassar College Research Committee Award (\$15,000)
2019	Vassar College ERI Collins Grant (\$5,000)
2011-2012	NSF Doctoral Dissertation Improvement Grant (\$12,450) <i>Title: Physiological mechanisms regulating plasticity in the peripheral auditory system: implications for communication.</i>
2011	Animal Behavior Society Student Research Grant (\$1,500)
2006	Sigma Xi Grant-in-Aid of Research (\$2,150)
2004	Schulz Grant for Environmental Research (\$4,500)

Honors, Awards, and Fellowships:

2012	H.E. Umbarger Outstanding Graduate Student Research Award (Department of Biological Sciences, Purdue University)
2010-2012	Purdue Research Foundation Fellowship (\$33,550)
2008	Ross Graduate Fellowship (\$23,000)

Professional Service:

2015-Present	Associate Editor of <i>The Auk: Ornithological Advances</i>
2014 - 2016	Session Moderator, Animal Behavior Society Meeting
2017-present	Session Moderator, Society for Integrative and Comparative Biology

Ad Hoc Reviewer (Journals):

Animal Behaviour
Behavioral Ecology and Sociobiology
Behavioral Neuroscience

Biology Letters
Brain, Behavior, and Evolution
The European Zoological Journal
Herpetologica
Integrative Zoology
Journal of Applied Ecology
The Journal of Comparative Physiology A
The Journal of Evolutionary Biology
The Journal of Experimental Biology
The Journal of Field Ornithology
The Journal of Ornithology
The Journal of Theoretical Biology
Philosophical Transactions of the Royal Society B
Proceedings of the Royal Society B
Southeastern Naturalist
Southwestern Naturalist
Wilson Journal of Ornithology
Wildfowl

Ad Hoc Reviewer (Grants):

External Reviewer, FONDECYT Program (Chilean NSF equivalent)
Animal Behavior Society Student Research Grants

Professional Membership (current):

Animal Behavior Society
Society for Integrative and Comparative Biology
International Society for Neuroethology

Professional Membership (previous):

AAAS
American Ornithologists' Union
Society for Behavioral Neuroendocrinology
Association for Research in Otolaryngology
International Society for Behavioral Ecology