

Tab 1

Emily Elizabeth Bray, MA, PhD, CAAB

sites.arizona.edu/bray-lab/
ebray@arizona.edu

PROFESSIONAL EXPERIENCE

Assistant Professor, University of Arizona, Tucson, AZ May 2023 – Present
College of Veterinary Medicine (*primary appointment*)
Cognitive Science Graduate Interdisciplinary Program (*faculty member*)
Psychology (*joint appointment*)

Research Scientist, Canine Companions for Independence®, Santa Rosa, CA May 2023 – May 2024

Certified Applied Animal Behaviorist (CAAB), credentialed by the Animal Behavior Society Jan 2023 – Present

Postdoctoral Research Associate (Supervisors: Dr. Evan MacLean and Dr. Brenda Kennedy)
Focus: Longitudinal cognitive and behavioral studies in assistance dogs
University of Arizona, School of Anthropology, Tucson, AZ May 2017 – Oct 2022
University of Arizona, College of Veterinary Medicine, Tucson, AZ, Oct 2022 – Apr 2023
and Canine Companions for Independence®, Santa Rosa, CA May 2017 – Apr 2023

EDUCATION

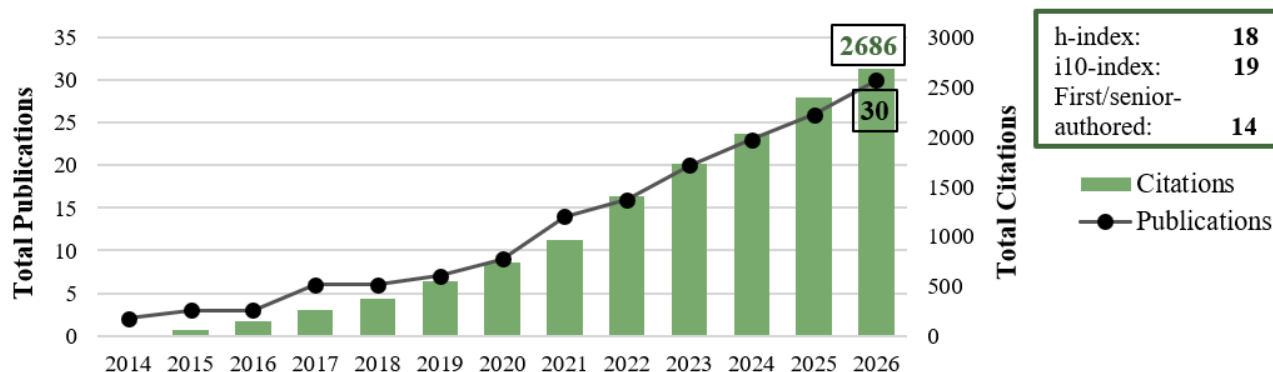
University of Pennsylvania, Philadelphia, PA May 2017
PhD in Psychology (concentration: Animal Learning & Behavior); Teaching Certificate in College & University Teaching
Dissertation: “A longitudinal study of maternal style, young adult temperament and cognition, and program outcome
in a population of guide dogs”
Advisors: Dr. Robert Seyfarth, Dr. Dorothy Cheney, and Dr. James Serpell (committee chair: Angela Duckworth)

University of Pennsylvania, Philadelphia, PA May 2013
M.A. in Psychology
Thesis: “Dogs as a model system for understanding problem-solving: Exploring the affective and cognitive mechanisms that
impact inhibitory control”
Advisors: Dr. Robert Seyfarth, Dr. Dorothy Cheney, and Dr. James Serpell

Duke University, Durham, NC May 2012
B.A. in Cognitive Psychology and English (*summa cum laude*), Graduation with Distinction in Psychology
Psychology GPA 4.0, Cumulative GPA 3.97
Thesis (distinction): “Factors Affecting Inhibitory Control in Dogs” (advisors: Dr. Brian Hare & Dr. Stephen Mitroff)

University College London, London, UK Aug 2010 - Dec 2010
Semester Abroad through Butler University’s Institute for Study Abroad

VITAE SUMMARY



PEER-REVIEWED PUBLICATIONS

^sdenotes student or postdoc mentee

30 peer-reviewed journal articles, including 14 first- or senior-authored

30. **Bray, E.E.**, Douglas, L.E.L.C., Levy, K.M., Gnanadesikan, G.E.^s, Horschler, D.J., Kennedy, B.S., & MacLean, E.L. (2026). Maternal care and early rearing environment influence puppy behaviour and cognition. *Animal Behaviour*, 237, 123609. doi: 10.1016/j.anbehav.2026.123609. Preprint: <https://www.biorxiv.org/content/10.64898/2025.11.29.691282v2>
29. Gnanadesikan, G.E.^s, **Bray, E.E.**, Levy, K.M., Horschler, D.J., Hargrave, S.H.^s, Douglas, L.E.L.C., Kennedy, B.S., Watowich, M.M., Snyder-Mackler, N., & MacLean, E.L. (2026). Characterizing the heritability of cognitive and behavioral traits across development in domestic dogs. *Royal Society Open Science*, 13 (2): 241918. doi: 10.1098/rsos.241918.
28. Salomons, H., Ferrans, M., Cusato, C., Moore, K., Woods, V., **Bray, E.E.**, Kennedy, B.S., Block, T., Douglas, L., Roberts, A., Gruen, M., & Hare, B. (2026). Longitudinal evidence for the emergence of multiple intelligences in service dog puppies. *Animal Behaviour*, 232, 123410. doi: 10.1016/j.anbehav.2025.123410. Preprint: <https://biorxiv.org/cgi/content/short/2024.09.26.615218v1>
27. Jonkoski, D.S.^s, Douglas, L.E.L.C., Horschler, D.J., Klensin, A.M.^s, Kennedy, B.S., MacLean, E.L., & **Bray, E.E.** (2026). Indiscriminate sociality: puppies do not re-engage a human partner after joint social play is interrupted. *Animal Behaviour*, 231, 123425. doi: 10.1016/j.anbehav.2025.123425.
26. Conrow, K.D., Haney, R.S.^s, Malek-Ahmadi, M.H., Albright, J.D., Kaplan, B.L.F., Snyder-Mackler, N., Kerr, K.F., Su, Y., Promislow, D.E.L., **Bray, E.E.**, Dog Aging Project Consortium, & Leung, M.C.K (2025). Demographic features, health status, and behavioral changes associated with cannabidiol use in the Dog Aging Project. *Frontiers in Veterinary Science*, 12:1666663. doi: 10.3389/fvets.2025.1666663.
25. Hargrave, S.H.^s, Keyser, A.J., Kristal, E., Alexander, G.E., Block, T.A., **Bray, E.E.**, Douglas, L.E.L.C., Kennedy, B.S., Promislow, D.E.L., Raichlen, D.A., Dog Aging Project Consortium, & MacLean, E.L (2025). Functional assessments of short-term spatial memory in the Dog Aging Project identify strong associations with age that are not moderated by body mass. *GeroScience*. doi: 10.1007/s11357-025-01867-4.
24. Amirhosseini, M.H., Serpell, J.A., **Bray, E.E.**, Block, T.A., Douglas, L.E.L.C., Kennedy, B.S., Evans, K.M., Freeberg, K., & Pettigrew, P. (2025). Prediction of Assistance Dog Training Outcomes Using Machine Learning and Deep Learning Models. *Applied Animal Behaviour Science*, 287, 106632. doi: 10.1016/j.applanim.2025.106632.
23. Gnanadesikan, G.E.^s, **Bray, E.E.**, Cook, E.N., Levy, K.M., Douglas, L.E.L.C., Kennedy, B.S., Tecot, S.R., & MacLean, E.L. (2024). Basal Plasma Oxytocin & Fecal Cortisol Concentrations are Highly Heritable and Associated with Individual Differences in Behavior & Cognition in Dog Puppies. *Hormones and Behavior*, 165, 105612. doi: 10.1016/j.yhbeh.2024.105612.
22. Hargrave, S.H.^s, **Bray, E.E.**, McGrath, S., Alexander, G.E., Block, T.A., Chao, N., Darvas, M., Douglas, L.E.L.C., Galante, J., Kennedy, B.S., Kusick, B., Moreno, J.A., Promislow, D.E.L., Raichlen, D.A., Switzer, L.R., Tees, L., Underwood Aguilar, M., Urfer, S.R., Dog Aging Project Consortium, & MacLean, E.L. (2024). Characterizing Dog Cognitive Aging Using Spontaneous Problem-Solving Measures: Development of a Battery of Tests from The Dog Aging Project. *GeroScience*, 47, 23–43. doi:10.1007/s11357-024-01278-x.
21. Gnanadesikan, G.E.^s, Tandon, D., **Bray, E.E.**, Tennanbaum, S., MacLean, E.L., & vonHoldt, B.M. (2024). Transposons in the Williams-Beuren Syndrome critical region are associated with social behavior in assistance dogs. *Behavior Genetics*, 54, 196-211. doi:10.1007/s10519-023-10166-7.
20. ManyDogs Project, Espinosa, J., Stevens, J.R., Alberghina, D., Alway, H.E., Barela, J.D., Bogese, M., **Bray, E.E.**, Buchsbaum, D., Byosiore, S.E., Byrne, M., Cavalli, C.M., Chaudoir, L.M., Collins-Pisano, C., DeBoer, H.J., Douglas, L.E.L.C., Dror, S., Dzik, M.V., Ferguson, B., Fisher, L., Fitzpatrick, H.C., Freeman, M.S., Frinton, S.N., Glover, M.K., Gnanadesikan, G.E.^s, Goacher, J.E.P., Golańska, M., Guran, A., Hare, E., Hare, B., Hickey, M., Horschler, D.J., Huber, L., Jim, H., Johnston, A.M., Kaminski, J., Kelly, D.M., Kuhlmeier, V.A., Lassiter, L.,

- Lazarowski, L., Leighton-Birch, J., MacLean, E.L., Maliszewska, K., Marra, V., Montgomery, L.I., Murray, M.S., Nelson, E.K., Ostojić, L., Palermo, S.G., Parks Russell, A.E., Pelgrim, M.H., Pellowe, S.D., Reinholz, A., Rial, L.A., Richards, E.M., Ross, M.A., Rothkoff, L.G., Salomons, H., Sanger, J.K., Santos, L., Schirle, A.R., Shearer, S.J., Silver, Z.A., Silverman, J.M., Sommese, A., Srdoc, T., St. John-Mosse, H., Vega, A.C., Vékony, K., Völter, C.J., Walsh, C.J., Worth, Y.A., Zipperling, L.M.I., Żołędzewska, B., & Zylberfuden, S.G. (2023). ManyDogs 1: A multi-lab replication study of dogs' pointing comprehension. *Animal Behavior and Cognition*, 10(3), 232-286. doi: 10.26451/abc.10.03.03.2023.
19. ManyDogs Project, Alberghina, D., **Bray, E.E.**, Buchsbaum, D., Byosiore, S.E., Espinosa, J., Gnanadesikan, G.E.^s, Guran, A., Hare, E., Horschler, D.J., Huber, L., Kuhlmeier, V.A., MacLean, E.L., Pelgrim, M.H., Perez, B., Ravid-Schurr, D., Rothkoff, L., Sexton, C.L., Silver, Z.A., & Stevens, J.R. (2023). ManyDogs Project: A Big Team Science Approach to Investigating Canine Behavior and Cognition. *Comparative Cognition & Behavior Reviews*, 18, 59-77. doi:10.3819/CCBR.2023.180004.
 18. Salomons, H., Smith, K., Callahan-Beckel, M., Callahan, M., Levy, K., Kennedy, B.S., **Bray, E.E.**, Gnanadesikan, G.^s, Horschler, D., Gruen, M., Tan, J., White, P., vonHoldt, B., MacLean, E.L., & Hare, B. (2023). Response to Hansen Wheat et al.: Additional analysis further supports the early emergence of cooperative communication in dogs compared to wolves raised with more human exposure. *Learning & Behavior*, 51(2), 131-134. doi: 10.3758/s13420-023-00576-2.
 17. **Bray, E.E.**, Raichlen, D.A., Forsyth, K., Promislow, D.E.L., Alexander, G.E., MacLean, E.L., & Dog Aging Project Consortium (2023). Associations between physical activity and cognitive dysfunction in older companion dogs: Results from the Dog Aging Project. *GeroScience*, 45, 645-661. doi:10.1007/s11357-022-00655-8.
 16. **Bray, E.E.**, Zheng, Z., Tolbert, M.K., McCoy, B., Dog Aging Project Consortium, Kaerberlein, M., & Kerr, K.F. (2022). Once-daily feeding is associated with better health in companion dogs: Results from the Dog Aging Project. *GeroScience*, 44, 1779-1790. doi: 10.1007/s11357-022-00575-7.
 15. Horschler, D.J., **Bray, E.E.**, Gnanadesikan, G.E.^s, Byrne, M.^s, Levy, K.M., Kennedy, B.S., & MacLean, E.L. (2022). Dogs re-engage human partners when joint social play is interrupted: A behavioral signature of shared intentionality? *Animal Behaviour*, 183, 159-168. doi:10.1016/j.anbehav.2021.11.007.
 14. **Bray, E.E.**, Gnanadesikan, G.E.^s, Horschler, D.J., Levy, K. M., Kennedy, B.S., Famula, T.R., & MacLean, E.L. (2021). Early-emerging and highly heritable sensitivity to human communication in dogs. *Current Biology*, 31(14), 3132-3136. doi:10.1016/j.cub.2021.04.055.
 13. Hall, N.J., Johnston, A.M., **Bray, E.E.**, Otto, C.M., MacLean, E.L., & Udell, M.A.R. (2021). Working dog training for the twenty-first century. *Frontiers in Veterinary Science*, 8:646022. doi: 10.3389/fvets.2021.646022.
 12. Salomons, H., Smith, K., Callahan-Beckel, M., Callahan, M., Levy, K., Kennedy, B.S., **Bray, E.E.**, Gnanadesikan, G.^s, Horschler, D., Gruen, M., Tan, J., White, P., MacLean, E.L., & Hare, B. (2021). Cooperative communication with humans evolved to emerge early in domestic dogs. *Current Biology*, 31(14), 3137-3144. doi: 10.1016/j.cub.2021.06.051.
 11. **Bray, E.E.**, Otto, C.M., Udell, M.A.R., Hall, N.J., Johnston, A.M., & MacLean, E.L. (2021). Enhancing the selection and performance of working dogs. *Frontiers in Veterinary Science*. 8:644431. doi:10.3389/fvets.2021.644431.
 10. **Bray, E.E.**, Gruen, M.E., Gnanadesikan, G.E.^s, Horschler, D.J., Levy, K. M., Kennedy, B.S., Hare, B.A., & MacLean, E.L. (2021). Dog cognitive development: a longitudinal study across the first 2 years of life. *Animal Cognition*, 24, 311-328. doi:10.1007/s10071-020-01443-7.
 9. **Bray, E.E.**, Gruen, M.E., Gnanadesikan, G.E.^s, Horschler, D.J., Levy, K.M., Kennedy, B.S., Hare, B.A., & MacLean, E.L. (2020). Cognitive characteristics of 8- to 10-week-old assistance dog puppies. *Animal Behaviour*, 166, 193-206. doi:10.1016/j.anbehav.2020.05.019.

Emily E. Bray

8. Byrne, M.^S, **Bray, E.E.**, MacLean, E.L., & Johnston, A.M. (2020). Evidence for win-stay-lose-shift in puppies and adult dogs. *Proceedings of the Cognitive Science Society*.
7. **Bray, E.E.**, Levy, K.M., Kennedy, B.S., Duffy, D.L., Serpell, J.A., & MacLean, E.L. (2019). Predictive models of assistance dog training outcomes using the Canine Behavioral Assessment and Research Questionnaire and a standardized temperament evaluation. *Frontiers in Veterinary Science*. 6:49. doi:10.3389/fvets.2019.00049.
6. **Bray, E.E.**, Sammel, M.D., Cheney, D.L., Serpell, J.A., and Seyfarth, R.M. (2017). Effects of maternal investment, temperament, and cognition on guide dog success. *Proceedings of the National Academy of Sciences of the United States of America*, 114(34), 9128-9133. doi:10.1073/pnas.1704303114.
5. **Bray, E.E.**, Sammel, M.D., Seyfarth, R.M., Serpell, J.A., and Cheney, D.L. (2017). Temperament and problem solving in a population of adolescent guide dogs. *Animal Cognition*, 20(5), 923-939. doi:10.1007/s10071-017-1112-8.
4. **Bray, E.E.**, Sammel, M.D., Cheney, D.L., Serpell, J.A., & Seyfarth, R.M. (2017). Characterizing early maternal style in a population of guide dogs. *Frontiers in Psychology*, 8, 175. doi:10.3389/fpsyg.2017.00175.
3. **Bray, E.E.**, MacLean, E.L., & Hare, B.A. (2015). Increasing arousal enhances inhibitory control in calm but not excitable dogs. *Animal Cognition*, 18(6), 1317-1329. doi:10.1007/s10071-015-0901-1.
2. MacLean, E.L., Hare, B., Nunn, C.L., Addessi, E., Amici, F., Anderson, R.C., Aureli, F., Baker, J.M., Bania, A.E., Barnard, A.M., Boogert, N.J., Brannon, E.M., **Bray, E.E.**, Bray J., Brent, L.J.N., Burkart, J.M., Call J., Cantlon, J.F., Cheke, L. G., Clayton, N. S., Delgado, M.M., DiVincenti, L.J., Fujita, K., Herrmann, E., Hiramatsu, C., Jacobs, L.F., Jordan, K.E., Laude, J. R., Leimgruber, K.L., Messer, E.J.E. , Moura, A.C.deA., Ostojić, L., Picard, A., Platt, M.L., Plotnik, J.M., Range, F., Reader, S.M., Reddy, R.B., Sandel, A.A., Santos, L.R., Schumann, K., Seed, A.M., Sewall, K.B., Shaw, R.C., Slocombe, K.E., Su, Y., Takimoto, A., Tan, J., Tao, R., van Schaik, C.P., Virányi, Z., Visalberghi, E., Wade, J.C., Watanabe, A., Widness, J., Young, J.K., Zentall, T.R., & Zhao, Y. (2014). The Evolution of Self-Control. *Proceedings of the National Academy of Sciences of the United States of America*, 111(20), E2140-E2148. doi:10.1073/pnas.1323533111.
1. **Bray, E.E.**, MacLean, E.L., & Hare, B.A. (2014). Context specificity of inhibitory control in dogs. *Animal Cognition*, 17(1), 15-31. doi:10.1007/s10071-013-0633-z.

MANUSCRIPTS – UNDER REVIEW AND IN REVISION

^Sdenotes student or postdoc mentee

5. Leighton, S.C. O'Haire, M.E., Jensen, C.L., Bristol, S., Nieforth, L.O., Ashbeck, E.L., Bedrick, E.J., vanMarle, K., MacLean, E.L., **Bray, E.E.**, Campbell, R.L., Davis, L.W., Taylor, D.K., Brown, E.A., & Rodriguez, K.E. (submitted). The Service Dog and Veteran Experiences Study (SERVES): A Randomized Controlled Trial Protocol.
4. Jonkoski, D.S.^S, Lorig, N.^S, Delzio, M.S, Klensin, A.^S, Marsters, A.^S, Li, H., Bernal, A., Mehl, M., Rodriguez, K., & **Bray, E.E.** (in revision). Cross-species conversations: The development of the AURAL-Pet coding system to capture how people talk to pets in daily life.
3. Gnanadesikan, G.E., **Bray, E.E.**, Snyder-Mackler, N., Switzer, L.R., Stetson, N.W.^S, Toll, M., Hargrave, S.^S, Horschler, D.J., Douglas, L.E.L.C., Block, T.A., Kennedy, B.S., Levy, K.M., Watowich, M.M., & MacLean, E.L. (in revision). Genetic architecture of cognitive and behavioral traits in dogs reveals deep polygenicity and conserved links to human psychological traits.
2. Hargrave, S.H.^S, **Bray, E.E.**, Switzer, L.R., McGrath, S., Alexander, G.E., Block, T.A., Carranza, E., Chao, N., Douglas, L.E.L.C., Galante, J., Hilyard, E., Jonkoski, D.S.^S, Kennedy, B.S., Kristal, E., Moreno, J.A., Promislow, D.E.L., Raichlen, D.A., Stetson, N.W.^S, Tereso, K., Dog Aging Project Consortium, & MacLean, E.L. (in revision). Cognitive Assessment for Neuropsychological Impairments in Dogs (CANID): An Efficient, Repeatable, and Sensitive Evaluation for Age-related Cognitive Dysfunction.

Emily E. Bray

1. Hecht, E.E., Andics, A., Bowen, J., Boyko, A., **Bray, E.E.**, Fatjó, J., Head, E., Hekman, J.P., Huson, H., Jiménez, A.G., Johnson, P., Kukekova, A., Larson, G., Leeb, T., Lesch, R., Loftus, J., Lohi, H., MacLean, E.L., Mason, N., Miklosi, A., Mills, D., O'Neil, D., Otto, C., Prugh, L., Range, F., Ruple, A., Udell, M., Urfer, S., Vite, C., vonHoldt, B., Wirsing, A., & Wynne, C. (under review). Modeling Biology in the Real World: Lessons from the Domestic Dog.

OTHER PUBLICATIONS

^sdenotes student or postdoc mentee

2. Gnanadesikan, G.E. ^s, **Bray, E.E.**, Levy, K.M., Horschler, D.J., Gruen, M.E., Kennedy, B.S., Hare, B. & MacLean, E.L. (2023). Dog Cognitive Development Battery Methods. *OSF*. doi: 10.17605/OSF.IO/CSK3A. <https://osf.io/csk3a/>
1. MacLean, E.L., Hargrave, S.H. ^s, & **Bray, E.E.** (2025). Cognitive Assessment for Neuropsychological Impairments in Dogs (CANID). *OSF*. <https://osf.io/n7jt9/>

RESEARCH GRANTS: CURRENT SUPPORT

Co-applicant	\$2,500,000 Social Sciences and Humanities Research Council of Canada Partnership Grant, Stage 2 (PI: C. Dell, University of Saskatchewan) "Establishing a Network for Human-Animal Connections Research and Collaboration"	2026-2031
Co-I	\$191,081 AKC Canine Health Foundation (PI: E. MacLean) "Protective Role for Insulin-like Growth Factor 1 (IGF-1) in Canine Cognitive Dysfunction"	2026-2029
PI	\$200,000 Mae Philanthropies (PI: E. Bray) "ACTIVE aging: Assessing how Cognitive Trajectories are Impacted by Varied Enrichment"	2025-2030
PI	\$150,000 Mae Philanthropies & R.K. Mellon Family Foundation (PI: E. Bray) "Bridging Futures: Empowering Communities through an Innovative Joint Service Dog Raising Program" (Mae Philanthropies \$100,000; R.K. Mellon Family Foundation \$50,000)	2025-2027
Co-I	\$8,435,410 Department of Defense HT9425-24-1-0178 (PI: M. O'Haire) "Psychiatric service dogs and prolonged exposure therapy for military-connected PTSD: a randomized clinical trial"	2024-2029
MPI	\$552,815 Waltham Petcare Science Institute (MPIs: K. Rodriguez and E. Bray) "Personalized Approaches to Evaluating the Impacts of Pets on Human Mental Health and Wellbeing in Geographically Diverse and Older Adult Populations"	2024-2027
Co-I	\$3,315,541 National Institutes of Health R01 HD106413 (PI: M. O'Haire) "Multi-site, longitudinal trial evaluating the efficacy, mechanisms, and moderators of service dogs for military veterans with PTSD"	2022-2026

RESEARCH GRANTS: PREVIOUS SUPPORT

Co-applicant	\$20,000 Social Sciences and Humanities Research Council of Canada Partnership Grant, Stage 1 (PI: C. Dell, University of Saskatchewan) "Building a Centre for Human-Animal Connections & Collaboration (CHAC2)"	2025-2026
Postdoctoral Scholar/Key Personnel	\$765,293 Office of Naval Research (PI: E. MacLean) "Developmental and Genetic Influences on Working Dog Cognition"	2020-2025
Co-PI	\$25,000 University of Arizona Foundation, Board of Trustees Small Grant Committee (PIs: Bray & Rodriguez) "Pilot Funding for a UArizona College of Veterinary Medicine Veterinary Summer Scholars Research Program"	2024

Emily E. Bray

Postdoctoral Scholar/Key Personnel	\$300,577 National Institute on Aging (PI: E. MacLean) “Development of Cognitive and Physical Activity Biomarkers for a Companion Dog Model of Alzheimer’s Disease”	2020-2022
Co-PI	\$105,949 AKC Canine Health Foundation (PIs: E. Bray and E. MacLean) “The Effects of Early Life Experience on Working Dog Temperament and Cognition”	2018-2021
Postdoctoral Scholar/Key Personnel	\$451,920 Office of Naval Research (PI: E. MacLean) “Ontogeny and Heritability of Cognitive and Behavioral Traits Linked to Military Working Dog Success”	2017-2019
Fellow	\$32,000/year National Science Foundation Graduate Research Fellowship Program	2013-2016
Fellow	\$27,615/year University of Pennsylvania Benjamin Franklin Fellowship	2012-2013, 2016-2017

HONORS AND AWARDS

Animal Behavior Society 2026: Caregiver Grant (\$405)	2026
Research, Innovation & Impact George H. Davis Travel Fellowship (\$2,500)	2025
2024 GeroScience Outstanding Original Research Paper Award, Fourth Prize	2024
University of Arizona: 2022 Outstanding Postdoctoral Scholar Award	2022
Wallis Annenberg PetSpace Leadership Institute Fellow, Class of 2020	2020
McDonogh School Young Alumni Award Recipient	2019
University of Arizona Sursum Fellow: Postdoctoral Research Development Grant (\$1,083)	2018-2019
School of Arts & Sciences Dean’s Travel Subvention (\$500)	Spring 2017
Norman Anderson Graduate Student Fund, Dept. of Psychology (\$2,490)	Winter 2017
School of Arts & Sciences Dean’s Travel Subvention (\$500)	Summer 2016
Norman Anderson Graduate Student Fund, Dept. of Psychology (\$3,000)	Summer 2015
School of Arts & Sciences Dean’s Travel Subvention (\$300)	Summer 2014
Norman Anderson Graduate Student Fund, Dept. of Psychology (\$2,750)	Summer 2014
Teece Fellowship, University of Pennsylvania (\$2,000)	Summer 2013
Phi Beta Kappa, Duke University	Spring 2013
Karl E. Zener Award for Outstanding Performance in Psychology, Duke University	Spring 2012
Faculty Scholar Award Nominee, Duke University	Fall 2011
Undergraduate Research Support Office Independent Study Grant (\$400)	Fall 2011
Vertical Integration Program in Psychology Stipend (\$3,000)	Summer 2011
Student Marshal	Spring 2011
Winfred Quinton Holton Prize for Innovative Work in the Field of Education	Spring 2011
Duke Dean’s List with Distinction	Fall 2008, Fall 2009, Spring 2011, Fall 2011
Duke Dean’s List	Spring 2009, Spring 2010
Psi Chi Honor Society Inductee	Spring 2010

ACADEMIC INVITED TALKS

Canine Science Forum, Keynote Speaker, University of Warsaw, Warsaw, Poland	Forthcoming 2027
Wallis Annenberg PetSpace Leadership Institute 10th Anniversary Fellows Workshop, Invited Participant	2026
Sci Scent Conference (opening speaker on both days), Sulhamstead, United Kingdom	2026
10 th Annual International Courthouse Dogs Conference, Closing Keynote, Orlando, Florida	2025
Inaugural Duffield Institute Service Dog Symposium, Cornell University	2025
Duke Canine Cognition Center, Duke University	2025
Joint Symposium for Working K9s, Plenary Talk, Atlanta, Georgia	2025
The Origins Conference (The Functional Dog Collaborative & IAABC Foundation)	2025
20 th Annual College of Science Lecture Series, Opening Lecture , University of Arizona	2025
Human Animal Interaction Section of American Psychological Association Webinar	2025
Cognitive Science Colloquium Series, University of Arizona	2025
Science of Medicine Grand Rounds, Mayo Clinic, Scottsdale, Arizona	2024

Emily E. Bray**Curriculum Vitae**

Research Series on Human-Animal Relationships, University of Arizona	2024
Comparative Medicine Symposium, Arizona State University	2023
Faculty Research Blitz, Fall 2023 Colloquium Series, University of Arizona Department of Psychology	2023
Animal Behavior Graduate Group Winter 2023 Seminar Series, UC Davis	2023
Evolution of Social Complexity Colloquium, Arizona State University	2021
Lunch & Learn, Penn Vet Working Dog Center	2021
Biology Department Colloquium Speaker Series, Sonoma State University	2020
Wallis Annenberg PetSpace Leadership Institute Retreat, Wallis Annenberg PetSpace	2020
1 st Annual Darwin Dogs Day, Duke Canine Cognition Center, Duke University	2019
Evolutionary Anthropology Talk Series, Duke University	2019
Canine Science Symposium, San Francisco SPCA	2018
Centre for Research in Animal Behaviour, University of Exeter	2016
Clever Dog Lab, Messerli Research Institute, University of Veterinary Medicine Vienna	2013
Family Dog Project, Eötvös Loránd University Department of Ethology	2013

OUTREACH INVITED TALKS

Animal Behavior Society 2026 Public Day Program, Keynote Address, Cincinnati, Ohio	2026
Pennsylvania State University Canine Extension Webinar, Virtual	2026
Canine Companions All Staff Town Hall, Santa Rosa, California	2026
Canine Companions for Independence Empower Independence Society, Santa Rosa, California	2026
Federal Correctional Complex, Tucson, Arizona	2025
Waltham Petcare Science Institute, Virtual	2025
Courthouse Dogs Foundation, Q&A on Inside the Mind of a Dog, Orlando, Florida	2025
Disability Resource Center, University of Arizona	2025
Liberty Dogs™, Reno, Nevada	2025
K9s for Warriors, Virtual	2024
Canine Companions for Independence Heritage Society Arizona stakeholder event, Tucson, Arizona	2024
Lunch & Learn with K9s for Warriors and Senate Mental Health Caucus, Dirksen Senate Office Building	2024
Futures Council Inaugural Meeting, University of Arizona College of Veterinary Medicine	2024
Assistance Dogs International Members Forum presentation, Virtual	2023
Good Dog Good Breeder Community, Virtual	2022
Lagotto Romagnolo Club of America, Virtual	2022
Petminded Workshop Series, Virtual	2021
Canine Companions for Independence Breeder Caretaker Seminar, Santa Rosa, California	2021
Canine Companions for Independence Virtual Heritage Society Donor Events, Northwest, Southwest, Northeast, Southeast, and South Central Regions	2020
Canine Companions for Independence Breeder Caretaker Seminar, Santa Rosa, California	2018
Canine Companions for Independence TEAM Volunteer Leadership Conference, Santa Rosa, California	2018
Canine Companions for Independence Research Update, National Board Meeting, Santa Rosa, California	2018
Canine Companions for Independence National Board Meeting Reception, Santa Rosa, California	2017
The Seeing Eye, Morristown, New Jersey	2015, 2017

PANELS AND SYMPOSIA

“Turning Evidence into Action” panel, <i>panelist</i>	
Duffield Institute Service Dog Symposium, Cornell University College of Veterinary Medicine	2025
“Pets and Human Mental Health and Wellbeing: Embracing complexity, context, and collaboration through an innovative HAI research program” symposium, <i>panelist</i>	
34th International Society for Anthrozoology Conference, Saskatoon, Canada	2025

ORAL PRESENTATIONS*denotes presenter ^sdenotes student or postdoc mentee

Gnanadesikan, G.E. ^{*s} , Bray, E.E. , Snyder-Mackler, N., Switzer, L., Stetson, N.W. ^s , Toll, M., Hargrave, S. ^s , Horschler, D.J., Douglas, L.E.L.C., Block, T.A., Kennedy, B.S., Levy, K.M., Watowich, M.M., & MacLean, E.L (2026 July). Genetic Architecture of Canine Behavior in a Population of Retrievers (<i>Canis lupus familiaris</i>). Animal Behavior Society 2026 Meeting, Cincinnati, Ohio.	
---	--

Emily E. Bray

- Jonkoski, D.S.*^S, Lorig, N.^S, Delzio, M.C.^S, Li, H., Bernal, A.M., Mehl, M.R., Rodriguez, K.E., & **Bray, E.E.** (July 2026). I'm all EARs: The creation of the AURAL-Pet coding system to explore daily human-pet interactions. 35th International Society for Anthrozoology Conference, Paris, France.
- Lorig, N.^{S*}, Jonkoski, D.S.^S, Andrews, E., Andrews-Hanna, J., Grilli, M., Li, H., Bedrick, E., MacLean, E.L., **Bray, E.E.**, & Rodriguez, K.E. (July 2026). Using ecological momentary assessment to evaluate the impact of pet presence on human thought patterns and affect. 35th International Society for Anthrozoology Conference, Paris, France.
- Bray, E.E.***, Jonkoski, D.S.^S, Lorig, N.^S, Delzio, M.C.^S, Bernal, A.M., Mehl, M.R., & Rodriguez, K.E. (2026 June). The Creation of AURAL-Pet: Audio-based Understanding of Relational Animal-directed Language. Canine Science Conference, Vancouver, B.C., Canada.
- Jonkoski, D.S.*^S, Douglas, L.E.L.C., Horschler, D.J., Klensin, A.M.^S, Kennedy, B.S., MacLean, E.L., & **Bray, E.E.** (2026 June). Investigating Markers of Joint Intentionality in Domestic Dog Puppies. Canine Science Conference, Vancouver, B.C., Canada.
- Stetson, N.W.^{S*}, **Bray, E.E.**, Douglas, L.E.L.C., Block, T., Kennedy, B.S., & MacLean, E.L. (2026 June). Sex differences in cognition and temperament in service dogs in training. Canine Science Conference, Vancouver, B.C., Canada.
- MacLean, E.L., Gnanadesikan, G.E., Snyder-Mackler, N., Switzer, L., Stetson, N.W.^S, Toll, M., Hargrave, S.^S, Horschler, D.J., Douglas, L.E.L.C., Block, T., Kennedy, B.S., Levy, K.M., Watowich, M.M., & **Bray, E.E.** (2026 June). Genetic Architecture of Cognitive and Behavioral Traits in a Population of Labrador and Golden Retrievers. Canine Science Conference, Vancouver, B.C., Canada.
- Jonkoski, D.S.*^S, Delzio, M.^S, Bernal, A., Mehl, M., Rodriguez, K.E., & **Bray, E.E.** (2025 September). Cross-species conversations: The development of a coding system to capture verbal communication between people and their pets. 2nd Annual Research Day at the University of Arizona College of Veterinary Medicine. Oro Valley, Arizona.
- Jonkoski, D.S.^S, Delzio, M.^S, Bernal, A., Mehl, M., Rodriguez, K.E., & **Bray, E.E.*** (2025 June). Cross-species conversations: The development of a coding system to capture verbal communication between people and their pets. 34th International Society for Anthrozoology Conference. Saskatoon, Canada.
- Houle, A.N.*^S, MacLean, E.L., & **Bray, E.E.** (2024 September). Can service dog success be predicted at 8 weeks of age? First Annual University of Arizona College of Veterinary Medicine Research Day, Tucson, Arizona.
- Gnanadesikan, G.E.*^S, **Bray, E.E.**, Levy, K.M., Douglas, L.E.L.C., Horschler, D.J., Hargrave, S.^S, Kennedy, B.S., Watowich, M.M., Snyder-Mackler, N., & MacLean, E.L. (2024 June). Characterizing the Heritability of Cognitive and Behavioral Traits across Development in Domestic Dogs. Animal Behavior Society 2024 Meeting, Warder Clyde Allee Competition Symposium, London, Ontario, Canada.
- Bray, E.E.***, Zheng, Z., Tolbert, M.K., McCoy, B.M., Kaeberlein, M., Kerr, K.F., Raichlen, D.A., Forsyth, K.K., Promislow, D.E.L., Alexander, G.E., MacLean, E.L., & Dog Aging Project Consortium (2024 June). Associations between lifestyle factors and canine cognitive function: Results from the Dog Aging Project. The 4th Canine Science Conference, Seattle, Washington.
- Hargrave, S.*^S, **Bray, E.E.**, McGrath, S., Alexander, G.E., Block, T.A., Chao, N., Darvas, M., Douglas, L.E.L.C., Galante, J., Kennedy, B.S., Kusick, B., Moreno, J.A., Promislow, D.E.L., Raichlen, D.A., Switzer, L.R., Tees, L., Underwood Aguilar, M., Urfer, S.R., Dog Aging Project Consortium, & MacLean, E.L. (2024 June). Characterizing Dog Cognitive Aging Using Spontaneous Problem Solving Measures: Development of a Battery of Tests from the Dog Aging Project. The 4th Canine Science Conference, Seattle, Washington.
- Bray, E.E.***, Douglas, L.E.L.C., Gnanadesikan, G.E.^S, Horschler, D.J., Kennedy, B.S., Levy, K.M., & MacLean, E.L. (2024 April). Mothers matter: How early life experiences influence canine cognition and behavior. The 31st Annual International Conference On Comparative Cognition, Albuquerque, New Mexico.

- Gnanadesikan, G.E.^{*S}, **Bray, E.E.**, Levy, K.M., Horschler, D.J., Hargrave, S.^S, Douglas, L.E.L.C., Kennedy, B.S., Watowich, M.M., Snyder-Mackler, N., & MacLean, E.L. (2024 April). Characterizing the heritability of Cognitive and Behavioral Traits Across Development in Domestic Dogs (*Canis lupus familiaris*). The 31st Annual International Conference On Comparative Cognition, Albuquerque, New Mexico.
- Hargrave, S.^S, **Bray, E.E.**, McGrath, S., Alexander, G.E., Block, T.A., Chao, N., Darvas, M., Douglas, L.E.L.C., Galante, J., Kennedy, B.S., Kusick, B., Moreno, J.A., Promislow, D.E.L., Raichlen, D.A., Switzer, L.R., Tees, L., Underwood Aguilar, M., Urfer, S.R., Dog Aging Project Consortium, & MacLean, E.L. (2024 April). Characterizing Dog Cognitive Aging Using Spontaneous Problem Solving Measures: A Battery of Tests from the Dog Aging Project. The 31st Annual International Conference On Comparative Cognition, Albuquerque, New Mexico.
- Gnanadesikan, G.E.^{*S}, **Bray, E.E.**, Levy, K.M., Douglas, L.E.L.C., Horschler, D.J., Hargrave, S.^S, Kennedy, B.S., & MacLean, E.L. (2023 Oct). Characterizing the heritability of cognitive and behavioral traits across development in a population of assistance dogs. South Eastern Evolution and Human Behavior 2023 Meeting. Stone Mountain, Georgia.
- Bray, E.E.***, Douglas, L.E.L.C., Gnanadesikan, G.E.^S, Horschler, D.J., Kennedy, B.S., Levy, K.M., & MacLean, E.L. (2023 Jan). Effects of early maternal care on puppy behavior and training outcome. #AnimBehav2023 Animal Behaviour Twitter Conference. <https://twitter.com/DrEmilyBray/status/1616146051735629824>
- Bray, E.E.*** & ManyDogs (2023 Jan). ManyDogs Project: Leveraging big team science to understand canine behavior and cognition. #AnimBehav2023 Animal Behaviour Twitter Conference. <https://twitter.com/ManyDogsProject/status/1616163665442664453>
- Bray, E.E.***, Douglas, L., Gnanadesikan, G.E.^S, Horschler, D.J., Levy, K.M., Kennedy, B.S., & MacLean, E.L. (2022 October). Effects of early rearing environment on working dog puppy behavior and outcome. Canine Science Conference, Colgate University, Hamilton, New York.
- Gnanadesikan, G.E.^{*S}, Tandon, D., **Bray, E.E.**, MacLean, E.L., & vonHoldt, B.M. (2022 October). Do dogs have Williams-Beuren Syndrome? Transposons, behavior & training success in assistance dogs. Canine Science Conference, Colgate University, Hamilton, New York.
- Bray, E.E.***, Raichlen, D.A., Forsyth, K., Promislow, D.E.L., Alexander, G.E., & MacLean, E.L. (2022 September). Associations between physical activity and cognitive dysfunction in older companion dogs: results from the Dog Aging Project. Dog Aging Project Annual Meeting, Seattle, Washington.
- Gnanadesikan, G.E.^{*S}, Tandon, D., **Bray, E.E.**, MacLean, E.L., & vonHoldt, B.M. (2022 July). Do dogs have Williams-Beuren Syndrome? Transposons, behavior & training success in assistance dogs. Animal Behavior Society 2022, San Jose, Costa Rica.
- Bray, E.E.***, Raichlen, D.A., Forsyth, K., Promislow, D.E.L., Alexander, G.E., MacLean, E.L., & Dog Aging Project Consortium (2022 June). Physical activity is associated with better cognitive function: Results from the Dog Aging Project. American College of Veterinary Internal Medicine Forum, Austin, Texas.
- Bray, E.E.*** (2022 April). The effect of maternal care on the outcomes of working dog puppies. 2022 Penn Vet Working Dog Conference (Virtual meeting).
- Bray, E.E.***, Gnanadesikan, G.E.^{*S}, Horschler, D.J., Levy, K.M., Kennedy, B.S., Famula, T.R., & MacLean, E.L. (2021 Oct). Development and heritability of cognitive traits in Canine Companions dogs. International Working Dog Conference 2021 (Virtual meeting).
- Bray, E.E.***, Levy, K.M., Kennedy, B.S., & MacLean, E.L. (2021 Oct). The effect of maternal style on later puppy behavior in Canine Companions dogs. International Working Dog Conference 2021 (Virtual meeting).

Emily E. Bray

- Bray, E.E.*** (2021 Sept). Making the Grade: Development of Cognition and Temperament in Assistance Dogs. 2021 Assistance Dogs International Virtual Conference.
- Bray, E.E.*** (2021 July). RStudio Projects and RMarkdown. Dog Aging Project, Trainees Research in Project (TRIP) Meeting.
- Bray, E.E.*** (2021 April). Continuing to explore the effects of mothering style in future assistance dogs. East Coast Canine Cognition Workshop, Yale University.
- Gnanadesikan, G.E.*^S, **Bray, E.E.**, MacLean, E.L., & vonHoldt, B.M (2021 April). Williams-Beuren Syndrome in Dogs? Genetic Variation, Social Behavior, and Assistance Dog Success. East Coast Canine Cognition Workshop, Yale University.
- Horschler, D.J., **Bray, E.E.***, & MacLean, E.L. (2021 April). Interpreting dogs' re-engagement behaviors after disrupted joint activities. East Coast Canine Cognition Workshop, Yale University.
- Horschler, D.J., **Bray, E.E.***, & MacLean, E.L. (2021 Feb). Do dogs form joint intentions with humans in social play? The Society for Personality and Social Psychology's Origins of the Social Mind Preconference.
- Bray, E.E.***, Gnanadesikan, G.E.*^S, Horschler, D.J., & MacLean, E.L. (2021 Jan). Heritable variation in dog social cognition. #AnimBehav2021 Animal Behaviour Twitter Conference.
<https://twitter.com/DrEmilyBray/status/1354554832749645826>
- Gnanadesikan, G.E.*^S, Espinosa, J.H., & **ManyDogs** (2021 Jan). ManyDogs 1: An International Collaborative Approach to Pointing Comprehension in Domestic Dogs. #AnimBehav2021 Animal Behaviour Twitter Conference.
<https://twitter.com/ManyDogsProject/status/1354550089918767105>
- Bray, E.E.*** & MacLean, E.L. (2020 July). Early ontogeny of social cognition in domestic dogs. Animal Behavior Society 2020 Virtual Conference.
- Bray, E.E.***, Gnanadesikan, G.E.*^S, Horschler, D.J., & MacLean, E.L. (2020 Feb). Early development and longitudinal stability of cognitive traits in working dogs. East Coast Canine Cognition Workshop, Yale University, New Haven, Connecticut.
- Byrne, M.*^S, **Bray, E.E.**, MacLean, E.L., & Johnston, A.M. (2020 Feb). Evidence for win-stay-lose-shift in puppies and adult dogs. East Coast Canine Cognition Workshop, Yale University, New Haven, Connecticut.
- Horschler, D.J.*^S, **Bray, E.E.**, & MacLean, E.L. (2020 Feb). Do dogs re-engage humans when joint experiences end? East Coast Canine Cognition Workshop, Yale University, New Haven, Connecticut.
- MacLean, E.L.*^S, Gnanadesikan, G.E.*^S, **Bray, E.E.**, & Snyder-Mackler, N. (2020 Jan). Dog diversity as a natural experiment in cognitive evolution. The Society for Integrative & Comparative Biology Annual Meeting, Austin, Texas.
- MacLean, E.L.*^S, **Bray, E.E.**, Gnanadesikan, G.E.*^S, & Horschler, D.J. (2019 Oct). Ontogeny and heritability of cognitive and temperamental traits in an assistance dog population. International Canine Science Conference, Tempe, Arizona.
- Bray, E.E.***, Gnanadesikan, G.*^S, Horschler, D., & MacLean, E. (2019 April). Early emerging cognition in 9-week-old puppies. The 26th International Conference On Comparative Cognition, Melbourne Beach, Florida.
- MacLean, E.*^S, **Bray, E.E.**, Gnanadesikan, G.*^S, & Horschler, D. (2019 April). Heritability of Cognitive Traits in a Pedigreed Dog Population. The 26th International Conference On Comparative Cognition, Melbourne Beach, Florida.
- Bray, E.E.*** (2018 Nov). How mothers matter: The impact of maternal style on later behavior and outcome in assistance dogs. East Coast Canine Cognition Workshop, Yale University, New Haven, Connecticut.

Emily E. Bray

- Bray, E.E.***, Sammel, M., Cheney, D., Serpell, J., & Seyfarth, R. (2017 Oct). The effects of maternal investment, temperament, & cognition on guide dog success. Canine Science Conference, Tempe, Arizona.
- Bray, E.E.***, Sammel, M., Cheney, D., Serpell, J., & Seyfarth, R. (2017 June). Puppies that succeed as guide dogs get tough love. 54th Annual Conference of the Animal Behavior Society, Toronto, Ontario.
- Bray, E.E.***, Sammel, M., Cheney, D., Serpell, J., & Seyfarth, R. (2016 Aug). Cognitive and temperament predictors of guide dog success. 53rd Annual Conference of the Animal Behavior Society, Columbia, Missouri.
- Bray, E.E.*** (2014 Aug). The effect of arousal on inhibitory control in dogs. 51st Annual Conference of the Animal Behavior Society, Princeton, New Jersey.
- Bray, E.E.*** (2013 Aug). Dogs as a model system for understanding the effect of arousal on inhibitory control. University of Pennsylvania, 699 presentations to the Department of Psychology. Philadelphia, Pennsylvania.
- Bray, E.E.*** (2012 Sept). What are the factors affecting inhibitory control in dogs? IGERT Common Ground Seminar. Philadelphia, Pennsylvania.
- Bray, E.E.***, MacLean, E.L., & Hare, B.A. (2012 April). Factors Affecting Inhibitory Control in Dogs. 7th Annual ACC Meeting of the Minds Conference, Blacksburg, Virginia.

POSTERS

**denotes presenter ^Sdenotes student or postdoc mentee*

- Jonkoski, D.S.*^S, Block, T.A., Douglas, L.E.L.C., Kennedy, B.S., MacLean, E.L., & **Bray, E.E.** (April 2026). Investigating the association between trainer ratings and independent assessments of service dog behavior. Annual Psychology Masters and Honors Research Forum. Tucson, AZ, USA.
- Bryant, J.*^S, MacLean, E.L., Leighton, S., Rodriguez, K.E., & **Bray, E.E.** (April 2026). The Effects of Different Raising Models on Service Dog Behavior and Outcome. Annual Psychology Masters and Honors Research Forum. Tucson, AZ, USA.
- Bryant, J.*^S, MacLean, E.L., Leighton, S., Rodriguez, K.E., & **Bray, E.E.** (April 2026). The Effects of Different Raising Models on Service Dog Behavior and Outcome. Franke Honors Pinnacle. Tucson, AZ, USA.
- Hirabayashi, C.*^S, Marsters, A.*^S, Jonkoski, D.S.^S, Lorig, N.^S, Delzio, M.C.^S, Bernal, A.M., Mehl, M.R., Rodriguez, K.E., & **Bray, E.E.** (March 2026). Developing the AURAL-Pet Ethogram to Quantify Human-Animal Interactions in Relation to Human-Animal Wellness. University of Arizona Animal & Comparative Biomedical Sciences (ACBS) Poster Session. Tucson, AZ, USA.
- Hirabayashi, C.*^S, Marsters, A.*^S, Jonkoski, D.S.^S, Lorig, N.^S, Delzio, M.C.^S, Bernal, A.M., Mehl, M.R., Rodriguez, K.E., & **Bray, E.E.** (March 2026). Developing the AURAL-Pet Ethogram to Quantify Human-Animal Interactions in Relation to Human-Animal Wellness. Graduate & Professional Student Council Student Showcase. Tucson, AZ, USA.
- ❖ *Awarded First Place in the Innovation, Technology, and Design for Impact Category*
- Santiago, M.*^S, Stetson, N.W.^S, MacLean, E.L., & **Bray, E.E.** (2025 September). Implementation of Ethogram and Qualitative Behavior Assessment Techniques in Coding Dog Temperament for SERVES. 2nd Annual Research Day at the University of Arizona College of Veterinary Medicine. Oro Valley, Arizona.
- Hugyetz, V.*^S, Lorig, N.^S, Garcia, A., Reich-Fuehrer, M., Rodriguez, K., Andrews-Hanna, J., Mehl, M., Grilli, M., MacLean, E.L., & **Bray, E.E.** (2025 September). Strengthening the bond?: Implications of pet talk frequency among older adults. 2nd Annual Research Day at the University of Arizona College of Veterinary Medicine. Oro Valley, Arizona.
- Murray, K.*^S, Hugyetz, V.^S, Hargrave, S.^S, **Bray, E.E.**, & MacLean, E.L. (2025 September). Identifying risk factors for cognitive decline in senior dogs. 2nd Annual Research Day at the University of Arizona College of Veterinary Medicine. Oro Valley, Arizona.

Emily E. Bray**Curriculum Vitae**

- Huguetz, V.^{*S}, Lorig, N.^S, Garcia, A., Reich-Fuehrer, M., Rodriguez, K., Andrews-Hanna, J., Mehl, M., Grilli, M., MacLean, E.L., & **Bray, E.E.** (2025 August). Strengthening the bond?: Implications of pet talk frequency among older adults. Boehringer Ingelheim Veterinary Scholars Symposium, Spokane, Washington.
- Murray, K.^{*S}, Huguetz, V.^S, Hargrave, S., **Bray, E.E.**, & MacLean, E.L. (2025 August). Identifying risk factors for cognitive decline in senior dogs. Boehringer Ingelheim Veterinary Scholars Symposium, Spokane, Washington.
- Jonkoski, D.S.^{*S}, Block, T.A., Kennedy, B.S., MacLean, E.L., & **Bray, E.E.** (2025 June). Investigating the association between trainer ratings and independent assessments of desirable dog behavior. 34th International Society for Anthrozoology Conference. Saskatoon, Canada.
❖ *Awarded Second Place, Best Student Poster Presentation*
- Jonkoski, D.S.^{*S}, & **Bray, E.E.** (2025 February). Investigating the association between trainer ratings and independent assessments of dog behavior. University of Arizona Psychology Virtual Interview Day Poster Session. Virtual.
- Conrow, K.D.^{*}, Haney, R.^S, Malek-Ahmadi, M., Snyder-Mackler, N., Kerr, K., Su, Y., Albright, J., Promislow, D., **Bray, E.E.**, Dog Aging Project Consortium, & Leung, M.C.K. (2024 September). Demography and Behavioral Changes of Dogs with Cannabidiol and Hemp Use in the Dog Aging Project. Environmental Mutagenesis and Genomics Society, Palm Springs, CA.
- George, N.M.^{*S}, **Bray, E.E.**, & MacLean, E.L. (2024 September). Cognitive and Behavioral Predictors of Success in a Service Dog Training Program. First Annual University of Arizona College of Veterinary Medicine Research Day, Tucson, Arizona.
- Houle, A.N.^{*S}, MacLean, E.L., & **Bray, E.E.** (2024 August). Can service dog success be predicted at 8 weeks of age? Boehringer Ingelheim Veterinary Scholars Symposium, St. Paul, Minnesota.
- George, N.M.^{*S}, **Bray, E.E.**, & MacLean, E.L. (2024 August). Are various behavioral tasks associated with a domestic canine's successful outcome in a service dog program? Boehringer Ingelheim Veterinary Scholars Symposium, St. Paul, Minnesota.
- Vogel, N.^{*S}, Hargrave, S.^S, Stetson, N.W.^S, Switzer, L., **Bray, E.E.**, & MacLean, E.L. (2024 August). Qualitative Behavioral Assessment in Service Dog Candidates. Undergraduate Research Opportunities Consortium's (UROC) Poster Session, Tucson, Arizona.
- Leung, M.C.K.^{*}, Conrow, K.D., Haney, R.^S, Su, Y., Snyder-Mackler, N., Kerr, K.F., Promislow, D., Albright, J., & **Bray, E.E.** (2024 July). Demography and Health History of Dogs with Cannabidiol and Hemp Use in the Dog Aging Project. Poster presented at the Research Society of Marijuana 8th Annual Scientific Meeting, Toronto, Ontario, Canada.
- Persoon-Hilby, E.^{*S}, Tseng, A., Norton, E., Block, T., **Bray, E.E.**, Kennedy, B.S., Mickelson, J., Jacob, S., & McCue, M. (June 2024). Heritability of impactful assistance dog behaviors for children with autism informed by family needs. 12th International Conference of Canine and Feline Genetics and Genomics 2024, Little Finlandia, Helsinki, Finland.
- Leung, M.C.K.^{*}, Conrow, K.D., Haney, R.^S, Su, Y., Snyder-Mackler, N., Kerr, K.F., Promislow, D., & **Bray, E.E.** (2024 March). Demography and Health History of Dogs with Cannabidiol and Hemp Use in the Dog Aging Project. Poster presented at Society of Toxicology Annual Meeting, Salt Lake City, Utah.
- Leung, M.C.K.^{*}, Conrow, K.D., Haney, R.^S, Snyder-Mackler, N., Kerr, K.F., Promislow, D., & **Bray, E.E.** (2023 September). Demography of Dogs with Cannabidiol and Hemp Use in the Dog Aging Project. Poster presented at Environmental Mutagenesis & Genomics Society Meeting, Chicago, Illinois.
- Bray, E.E.**^{*}, Zheng, Z., Tolbert, M.K., McCoy, B., Dog Aging Project Consortium, Kaerberlein, M., & Kerr, K.F. (2021 December). Once-daily feeding is associated with better cognitive function and health in companion dogs: Results from the Dog Aging Project. Poster presented at The Role of Companion Animals as Sentinels for Predicting

Emily E. Bray**Curriculum Vitae**

Environmental Exposure Effects on Aging and Cancer Susceptibility in Humans: A Hybrid Workshop, Washington, D.C. & Virtual.

- Bray, E.E.***, Zheng, Z., Tolbert, M.K., McCoy, B., Dog Aging Project Consortium, Kaeberlein, M., & Kerr, K.F. (2021 November). Once-daily feeding is associated with better cognitive function and health in companion dogs: Results from the Dog Aging Project. Poster presented at Dog Aging Project Semi-Annual Meeting, Virtual.
- Byrne, M.*, **Bray, E.E.**, MacLean, E.L., & Johnston, A.M. (2020 July). Evidence for win-stay-lose-shift in puppies and adult dogs. Poster presented at the 42nd Annual Meeting of the Cognitive Science Society, Virtual.
- Kennedy, B.S.*, Levy, K.M., **Bray, E.E.**, & MacLean, E.L. (2019 September). Maternal style: How early experiences are associated with future outcomes of assistance dogs. Poster presented at 11th International Working Dog Conference, Stockholm, Sweden.
- Humphrey, E.*^S, **Bray, E.E.**, & Crocker, D. (2019 April). Cortisol and its tie to behavior in service dogs. Poster presented at Sonoma State University Science Symposium: Science, Technology, and Environmental Inquiry, Rohnert Park, California.
- Seely, A.*^S, **Bray, E.E.**, & Seyfarth, R. (2014 September). Flexible Attention in Seeing Eye® Puppies. Poster presented at Center for Undergraduate Research & Fellowships Open House and Research Expo, Philadelphia, Pennsylvania.
- MacLean, E.L.*, Rainey, C., **Bray, E.E.**, Duffy, K., & Hare, B. (2012 July). Cognitive & Temperamental Traits of Successful Assistance Dogs. Poster presented at 21st Annual Conference of the International Society of Anthrozoology, Cambridge, United Kingdom.
- Bray, E.E.***, MacLean, E.L., & Hare, B.A. (2012 June). Factors Affecting Inhibitory Control in Dogs. Poster presented at 49th Annual Conference of the Animal Behavior Society, Albuquerque, New Mexico.
- Bray, E.E.***, MacLean, E.L., & Hare, B.A. (2012 April). Factors Affecting Inhibitory Control in Dogs. Poster presented at Duke's Visible Thinking Day, Durham, North Carolina.
- Bray, E.E.*** (2011 April). Recommendations for an English Language Learner Literacy Intervention in Durham Public Schools for Communities in Schools of Durham. Poster presented at Duke School Research Partnership End-of-Semester gathering poster presentation. Durham, North Carolina.

RESEARCH EXPERIENCE

Canine Companions for Independence, Santa Rosa, CA	
<i>Research collaborator; off-site supervisor</i>	2024 - Present
<i>Project coordinator; postdoctoral researcher; on-site supervisor</i>	2017 - 2023
<i>Project Co-Manager; Associate in Research in Evolutionary Anthropology</i>	July 2012
<i>Undergraduate researcher</i>	August 2011
University of Arizona, Arizona Canine Cognition Center, Tucson, AZ	
<i>Affiliated faculty</i>	2023 - Present
<i>Postdoctoral researcher</i>	2017 - 2023
The Seeing Eye, Inc., Morristown, NJ	
<i>Project coordinator; researcher; on-site supervisor</i>	2014 - 2016
Michigan State University Masai Mara Spotted Hyena Project, Kenya	
<i>Researcher</i>	Summer 2013
K2 Solutions, Pinehurst, NC	
<i>Associate in Research in Evolutionary Anthropology</i>	June 2012
Duke University, School Research Partnership Office, Durham, NC	
<i>Independent study student</i>	Spring 2011
Duke University, Duke Canine Cognition Center, Durham, NC	
<i>Undergraduate researcher and thesis student</i>	2010 - 2012

Emily E. Bray

MENTORING EXPERIENCE

Undergraduate Honors Theses Supervised

Jenna Bryant	University of Arizona	<i>The Effects of Different Raising Models on Service Dog Behavior and Outcomes</i>	2025 - 2026
Chandler From	University of Arizona	<i>The Effect of Vertical Nursing on Cognitive Test Scores in 8-week-old puppies</i>	2020
Camden Olson	Princeton University	<i>Service Dog Tales: A Tri-fold Study Investigating Diabetic Alert Dog Accuracy, the Use of Animal-Assisted Therapy to Address Executive Functioning Skills, and the Function of Calming Signals in Service Dog Puppies</i>	2018
Sarah Frommer	University of Pennsylvania	<i>Does Kennel Acclimation Reliably Indicate Stable Traits Related to Stress Reactivity In Young Seeing Eye® Dogs?</i>	2016
Molly Ream	University of Pennsylvania	<i>Stability of Behavioral Traits in Canines</i>	2016

Master's Projects Supervised

Dara Jonkoski	University of Arizona	<i>Investigating the Associations Between Trainer Ratings and Independent Assessments of Desirable Dog Behavior</i>	2025 – 2026
Kali Kirkpatrick	Colorado State University	<i>From Perception to Performance: Understanding Physical Activity and Cognitive Health in Aging Dogs</i>	2025 -2026
Chandler From	Unity College	<i>The Dog Aging Project: A Pilot Study on Cognitive Aging in Companion Dogs</i>	2022

Master's Committee Member

Molly Delzio	University of Arizona	<i>Systematic Literature Review and Meta-analysis of Animal-Assisted Interventions for Post Traumatic Stress</i>	2025 -
Richard Haney	Arizona State University	<i>Demographics and health status with cannabidiol use: Cross-sectional analyses in the Dog Aging Project</i>	2025

Dissertation Committee Member

Stephanie Hargrave	University of Arizona	<i>Title: TBD</i>	2024 -
Courtney Sexton	George Washington University	<i>What is Written on a Dog's Face? Implications of Phenotype Diversity in Human-directed Canine Communication</i>	2023

Comprehensive/Qualifying Exam Committees

Stephanie Hargrave	University of Arizona	Major Advisor	2025
--------------------	-----------------------	---------------	------

External Examiner

PhD Viva Voce Examination, Department of Zoology, Ecology and Plant Science, University College Cork, Ireland	2025
PhD Thesis Examination, School of Psychology and Public Health, La Trobe University, Australia	2023

Graduate Students and Postdoctoral Associates in the BRAY Lab: Mentor

Noah Stetson (PhD student, co-mentor)	2025 – Present
Nicole Lorig (Postdoctoral associate, co-mentor)	2025 – Present
Dara Jonkoski (PhD student, primary mentor)	2024 – Present

Visiting Scholars (J-1) in the BRAY Lab: Mentor

Yichen Bai	2026
------------	------

University of Arizona Undergraduate Research Assistants in the BRAY Lab: Mentor

Angela Rodriguez, <i>Animal and Comparative Biomedical Sciences</i>	Spring 2026
Caitlin Hirabayashi, <i>Psychological Sciences</i>	Spring 2026

Emily E. Bray

Caitlin Hirabayashi, <i>Animal and Comparative Biomedical Sciences</i>	Fall 2025
Abigail Marsters, <i>Psychological Sciences</i>	Spring 2025, Summer 2025, Fall 2025
Jenna Bryant, <i>Psychology</i>	Spring 2025, Fall 2025, Spring 2026
Minho Lee, <i>Psychological Sciences</i>	Spring 2025
Minho Lee, <i>Animal & Comparative Biomedical Sciences</i>	Fall 2024
Alyssa Klensin, <i>Psychological Sciences</i>	Fall 2024, Spring 2025

University of Arizona Veterinary Summer Scholars Research Program: Mentor

Ariana Bootier (primary mentor), Raymundo Buelna (co-mentor)	Summer 2026
Vivien Huguetz (primary mentor), Katie Murray (co-mentor)	Summer 2025
Alyssa Houle (primary mentor), Natasha George (co-mentor)	Summer 2024

University of Arizona College of Veterinary Medicine: Research Mentor

Melanie Santiago	2025
Jamie Dunaisky	2020 - 2021

Canine Companions Research Interns: Mentor and on-site supervisor

Angelina Schirle	Fall 2022 – Spring 2023
Kayla Gilbert, Alessandra Ostheimer, and Angelina Schirle	Spring/Summer 2022
Theresa Hatcher (Sonoma State University)	Spring 2020
Kyla Guinon, Erin Hardin, and Emily Humphrey (Sonoma State University)	Spring 2019
Alexzia Clark, Emily Humphrey, Facundo Ortega, and Camila Risueno-Pena (Sonoma State University)	Fall 2018
Alexzia Clark, Emily Humphrey, and Amber Robello (Sonoma State University)	Spring 2018

Undergraduate Research Assistants: Mentor and on-site supervisor

Rachel Shaberman (UC Davis)	2021
Camden Olson (Princeton)	2018
Mary Chiang (Franklin & Marshall)	2017
Lindsey Lang (University of Arizona)	2017
Sarah Frommer (University of Pennsylvania)	2015-2016
Molly Ream (University of Pennsylvania)	2015-2016
Rebecca Schwartz (University of Pennsylvania)	2015-2016
Leonie Cohen (Swarthmore College)	2015
Marie Torres (University of Pennsylvania)	2014
Stephanie Bartner (Franklin & Marshall)	2014
Ashleigh Seely (University of Pennsylvania)	2014

University of Pennsylvania Mentoring

The Graduate School Mentoring Initiative	2014 - 2015
The Penn Mentoring Program	2013 - 2014

TEACHING EXPERIENCE

Courses Developed

<i>Canine Cognition: Inside the Mind of a Dog (VETM 817, SEL 030)</i> College of Veterinary Medicine, University of Arizona	2026
--	------

<i>Canine Cognition (VETM 817, SEL 030)</i> College of Veterinary Medicine, University of Arizona	2024
--	------

Courses Taught

<i>Canine Cognition: Inside the Mind of a Dog (VETM 817, SEL 030)</i> College of Veterinary Medicine, University of Arizona	Summer 2026
--	-------------

<i>Research Selective (VETM 817)</i> College of Veterinary Medicine, University of Arizona	Summer 2026
---	-------------

Emily E. Bray

Canine Cognition (VETM 817, SEL 030)
College of Veterinary Medicine, University of Arizona

Summer 2025

Guest Lectures

Professional Skills, Year 1 (VETM 802B) 2026
University of Arizona College of Veterinary Medicine
Led session on research methods

Reprimment Lecture Series 2025
Splendido at Rancho Vistoso Life Plan Community
“The Making of a Mind: Studying behavior and cognition in assistance dogs across the lifespan”

Spiritual and Scientific Approaches to Consciousness (SBS 395C) 2025
University of Arizona College of Social & Behavioral Sciences
Co-led session on animal consciousness

Animal Behavior Club invited lecture 2024
Lincoln Memorial University College of Veterinary Medicine
“Ontogeny and heritability of behavioral and cognitive traits in dogs”

Psychology Honors Proseminar (PSYS 396H) 2024
University of Arizona
“Setting the dog-human relationship up for success: Understanding behavioral and cognitive traits in dogs”

Professional Skills, Year 1 (VETM 802C) 2024, 2025, 2026
University of Arizona College of Veterinary Medicine
Co-led session on the human-animal bond

Veterinary Summer Student Research Program (VSSRP) Orientation 2024, 2025, 2026
University of Arizona College of Veterinary Medicine
“Experimental and Non-Experimental Study Design: How to ask a research question”

Canine Cognition Seminar 2024
Barnard College, Psychology
Invited guest speaker

Psychology Lecture Series 2024
The University of Arizona Osher Lifelong Learning Institute
“Setting the dog-human relationship up for success: Understanding behavioral and cognitive traits in dogs”

Applied Companion Animal Behavior in Practice (ACBS 482/582) 2023, 2024
University of Arizona, Animal & Biomedical Sciences
“Development and heritability of behavioral and cognitive traits in dogs”

Introduction to Animal Science 2021
Oregon State University, Department of Animal and Rangeland Science
“From puppies to assistance dogs”

Human-Animal Bond Class 2021
University of Pennsylvania, School of Veterinary Medicine
“Ontogeny and heritability of behavioral and cognitive traits in dogs”

Field Studies in Animal Behavior: Dog Cognition and Behavior 2020
Hunter College, Psychology Department
“Research methods to study canine behavior and cognition”

Emily E. Bray

Animal Cognition Seminar 2014
University of Pennsylvania, Psychology Department
“How can dog research help us to understand inhibitory control?”

Animal Behavior 2013, 2014
University of Pennsylvania, Psychology Department
“How can dog research help us to understand inhibitory control?”

Teaching assistant
Animal Behavior, Dr. Seyfarth and Cheney, University of Pennsylvania Fall 2013, Fall 2014

Alumni community reader for the Duke Reader Project
Psy 202: Research Methods Fall 2020
Bio 329L: Principles of Animal Physiology Spring 2020
Psy 301: Research Methods Spring 2017

Tutoring experience
Thompson Writing Program: The Writing Studio, Durham, NC 2010 - 2012
Undergraduate Writing Tutor following completion of a semester-long course
Partners for Success, Durham, NC (4th grade) Fall 2011
Tutored as part of my service-learning course Psy 108A: Educational Psychology
The Duke School, Durham, NC (pre-school) Spring 2011
Student Observer for Psy 183B: Child Observation
Partners for Youth, Durham, NC (high school) 2008 – 2009

PROFESSIONAL SERVICE, DEVELOPMENT, AND AFFILIATIONS

Advisory positions

Scientific Advisory Board Member,
Morris Animal Foundation’s FY27 Mae Philanthropies Service Dogs Scientific Advisory Board 2026-2027
Research Committee Member, Courthouse Dogs Foundation Research Committee 2025 -
Scientific Advisory Board Member,
Morris Animal Foundation’s FY25 Canine Scientific Advisory Board 2024-2025
Member, Morris Animal Foundation Animal Health Advisory Council 2024 - Present
Scientific Committee Member, Canine Science Conference Scientific Committee 2024, 2026
Speaker application review panelist, Penn Vet Working Dog Conference 2022

Conference and Event Organization

Organizer, The CoLabradory: University of Arizona – Canine Companions Research Conference, Tucson, AZ 2026 –

Invited grant and awards reviewer

Morris Animal Foundation 2026
Swiss National Science Foundation 2026
Research Council of Hungary 2025
Morris Animal Foundation 2024
University of Arizona Outstanding Postdoctoral Scholar Award 2024
American Kennel Club Canine Health Foundation grants 2022
The Leakey Foundation grants 2021
University of Arizona Postdoctoral Research Development grants 2020
Animal Behavior Society student research grants 2019

Ad Hoc reviewer ([see Publons for verified peer reviews](#)) 2014 – Present

Animal Behavior and Cognition
Animal Behaviour
Animal Cognition
Applied Animal Behaviour Science
Behaviour

Emily E. Bray

Behavioural Processes
Discover Animals
Frontiers in Aging Neuroscience | Neurocognitive Aging and Behavior
GeroScience
Hormones and Behavior
Journal of Applied Animal Welfare Science
Journal of Comparative Psychology
Journal of Ethology
Journal of Veterinary Behavior: Clinical Applications and Research
Learning & Behavior
PLOS One
PNAS Nexus
Proceedings of the Royal Society B: Biological Sciences
Royal Society Open Science
Science
Scientific Reports
Veterinary Record

Big Team Science contributions

Dog Aging Project

Research Team member

2020 – Present

Science Seminar Committee member

2022 – 2023

ManyDogs consortium (*founding member*)

ManyDogs2: Team Captain

2025 - Present

Assistant Director: Communications & Community Building

2022 – 2026

ManyDogs1: Methods Development Committee; Team Captain

2019 – 2022

University and College Service

Member, College of Veterinary Medicine Annual Performance Evaluation Committee

2025 – Present

Faculty advisor, Student Chapter for Human Animal Bond at the

2025 – Present

University of Arizona College of Veterinary Medicine

Faculty advisor, Canine Companions Collar Scholars at the University of Arizona

2024 – Present

Attendee, College of Science Lecture Series Committee Meetings

2025

Reviewer, University of Arizona Outstanding Postdoctoral Scholar Awards

2024

Departmental service

Search Committee Chair, Research Technician III

2026

Search Committee Chair, Research Technician I

2026

Search Committee Chair, Research Technician II (Multiple Roles)

2026

Judge, 2nd Annual University of Arizona College of Veterinary Medicine Research Day

2025

Search Committee Member, Postdoctoral Research Associate I

2025

Search Committee Member, Laboratory Coordinator I

2025

Search Committee Chair, Research Technician II

2025

Search Committee Chair, Research Technician II

2024

Search Committee Member, Research Technician I

2023

Search Committee Chair, Research Technician (Temporary)

2023

Interviewer, Multiple Mini Interviews, College of Veterinary Medicine Admissions

2024, 2025

Organizer, “Topics in Animal Behavior” graduate seminar, University of Pennsylvania

2014, 2015, 2016

Society membership

American Association for the Advancement of Science (AAAS)

2025 - Present

Canine Science Society

2024 - Present

American Psychological Association

2021 - Present

Comparative Cognition Society

2020 - Present

The International Society of Anthrozoology

2017 - Present

Emily E. Bray

Animal Behavior Society

2012 - Present

PUBLIC SCIENTIFIC ENGAGEMENT (SELECTED EXAMPLES)

Longevity for Dogs Podcast. "Feeding Frequency and the Canine Brain with Dr. Emily Bray." https://bit.ly/4finWu4	July 2026
Behind the Bond LinkedIn Series by Mars. Dr. Emily Bray. https://bit.ly/4vwp8Bz	April 2026
Science Podcast (AAAS). "Building better working dogs, and watching a black hole form." https://bit.ly/3MJ1gZK	Feb 2026
AZPM Arizona Science Podcast. "Revealing the non-verbal world of communication between dogs and humans." https://bit.ly/4iivixG	Feb 2025
AZPM Arizona Science Podcast. "Why is our connection with canines so strong?" https://bit.ly/3V8SNjs	Nov 2024
Joint Symposium for Working K9s Podcast. "JSWK9 Invited Speaker Dr. Emily Bray." https://bit.ly/3N3Sp1u	Sept 2024
Dog Aging Project Blog. Scientific Results: Characterizing dog cognitive aging using spontaneous problem-solving measures: development of a battery of tests from the Dog Aging Project. https://bit.ly/3TNA8ZZ	Sept 2024
Seeking a Scientist, National Public Radio. "Dogs are talking – are you listening?" https://bit.ly/3AiAnVY	July 2024
Research Bites Podcast. #10 - Emily Bray – "Cognitive development, puppies, service dogs." http://bit.ly/41kUY42	March 2023
Dog Aging Project Blog. Scientific Results: Associations between physical activity and cognitive dysfunction in older companion dogs. https://bit.ly/3D50a2N	Oct 2022
PetAbility Podcast. "Canine Cognition with Emily Bray, PhD." https://bit.ly/3Lv51wV	Sept 2022
Dog Aging Project Blog. Scientific Results: Once-daily feeding is associated with better health in companion dogs. https://bit.ly/3Q9YiK3	June 2022
Dog Aging Project April Pack Event: Canine Cognition. https://bit.ly/3xNGXAp	April 2022
Dog Aging Project Blog. Meet Dr. Emily Bray, Canine Cognition Expert and Puppy Wrangler! https://bit.ly/3zKzDX5	March 2022
Spaces Unleashed Sci-Chat with Dr. Emily Bray, Puppy Researcher. https://bit.ly/3rWfed4	Feb 2022
Dogged Justice Podcast. "Cognitive Research With Puppies featuring Guest Emily Bray." https://apple.co/3B3ZyXe	Oct 2021
The Animal Behavior Podcast. Two-Minute Takeaway (Season 1, Episode 9). https://bit.ly/3FFtY5m	Oct 2021
The Science Pawdcast. "Puppy Pointing with Dr. Emily Bray." https://apple.co/3iPO6IN	Aug 2021
Quirks and Quarks, CBC Radio. "New study shows puppies are born able to understand and communicate with humans." https://bit.ly/3zkTfyH	June 2021

Emily E. Bray

Scientific American 60-Second Science Podcast. "Puppies Understand You Even at a Young Age, Most Adorable Study of the Year Confirms." https://bit.ly/3g6QNmB	June 2021
K9s Talking Scents Podcast. "The mind of a puppy with Dr. Emily Bray." http://bit.ly/2PetnLC	March 2021
The Functional Breeding Podcast. "Maternal Care in Dogs." http://bit.ly/36jTjJh	Jan 2021
Canine Companions for Independence, Facebook Live event. "Join Canine Companions postdoctoral research associate Dr. Emily Bray." https://bit.ly/2yIlyMV	May 2020
Continuing Education event presented as part of the 2019 VetVine Webinar Series sponsored by AKC Canine Health Foundation. "How Mothers Matter: The Influence of Early Maternal Interaction on Offspring Behavior and Development." http://bit.ly/2QscPDb	May 2019
Top of Mind with Julie Rose, BYU Radio. "What dogs teach us about parenting." https://bit.ly/3nDuQkc	Sept 2017
All Things Considered, National Public Radio. "Coddled puppies make poor guide dogs, study suggests." http://n.pr/2uA1vrS	Aug 2017
Quirks and Quarks, CBC Radio. "Puppies that get tough love succeed as guide dogs." http://bit.ly/2i7oTMC	Aug 2017
AAAS Science Update. "Guide Dog Success." http://bit.ly/2uOpa8n	Aug 2017

POPULAR MEDIA COVERAGE (SELECTED EXAMPLES)

O'Connell, L (6/1/2026). The 4 traits to look out for in mom dog when choosing a puppy. <i>Newsweek</i> . https://bit.ly/4yC1fKq	
Burch-Buus, L (3/31/2026). New U of A study will investigate growth hormones and cognitive aging in dogs. <i>University of Arizona News</i> . https://bit.ly/48VbJJp	
60 Minutes: "The Dog Aging Project" (3/22/2026). <i>CBS News</i> . https://bit.ly/3Oteniw	
Grimm, D (2/12/2026). Building a better working dog. <i>Science</i> . https://bit.ly/4anA0HW	
Johnstone, G (2/28/2025). Can feeding your dog once daily benefit their health? <i>American Kennel Club</i> . https://bit.ly/4io2T9z	
Cimons, M (11/9/2024). They're all good boys and girls, but only some can be service dogs. <i>The Washington Post</i> . https://bit.ly/3ACu547	
Burch-Buus, L (9/6/2024). 'Who's a good dog? Canine researcher is featured in Netflix documentary'. <i>University of Arizona News</i> . https://bit.ly/4i6Akhj	
Inside the Mind of a Dog (8/9/2024). <i>Netflix</i> . https://bit.ly/3SGYwMk (featured researcher)	
Page, S (8/8/2024). Dogs can smell human stress, and it bums them out, study shows. <i>The Washington Post</i> . https://wapo.st/3WWSfFW	
Burch-Buus, L (8/7/2024). U of A researcher featured in Netflix film 'Inside the Mind of a Dog'. <i>University of Arizona News</i> . https://bit.ly/3WXo76k	
Cimons, M (2/11/2024). My pets have stolen my heart again and again. I know I'm not alone. <i>The Washington Post</i> . https://bit.ly/4bOWnWN	
Bennet, M (2/7/2024). Why Do Dogs Wag Their Tails? It Might Be Because Humans Love Rhythm. <i>Discover Magazine</i> . https://bit.ly/3W4g4Vf	

Emily E. Bray

- Coleman, J (1/16/2024). Some mysteries remain about why dogs wag their tails. *ScienceNews*. <https://bit.ly/4319T5O>
- Pappas, S (8/22/2023). Can dogs use language? *Scientific American*. <https://bit.ly/45Sg5gm>
- Ogden, LE (7/26/2022). Inside the brains of aging dogs. *Knowable Magazine*. <https://bit.ly/3zTRESZ>
- Osborne, H (11/16/2021). Dogs Fed Once Per Day Appear to Have Better Health and Cognitive Function, Study Finds. *Newsweek*. <https://bit.ly/3oRxIJ0>
- The World According to Jeff Goldblum (11/12/2021). S02 E01: Dogs. *Disney+*.
- Woodward, A (9/16/2021). Recent discoveries reveal how dogs are hardwired to understand and communicate with people — even at birth. *Business Insider*. <https://bit.ly/3kipokJ>
- Carroll, L (6/4/2021). Pup’s looking at you, kid: Puppies can understand human cues from very young age. *NBC News*. <https://nbcnews.to/3zaUQH0>
- LaMotte, S (6/3/2021). Puppies are born ready to interact with people, study finds. *CNN*. <https://cnn.it/3vT7Wqz>
- Fox, A (6/3/2021). Puppies Are Born Ready to Communicate With Humans. *Smithsonian Magazine*. <https://bit.ly/3w1Gp6c>
- Grimm, D (3/17/2021). These adorable puppies may help explain why dogs understand our body language. *Science*. <https://bit.ly/3kWFVLy>
- Perez, G (8/9/2017). “Tough love” from mom makes a better guide dog, study finds. *CBS This Morning*. <http://cbsn.ws/2wHOyhe>
- Woodward, A (8/7/2017). Over-mothered puppies more likely to fail guide dog training. *New Scientist*. <https://bit.ly/3CDr5PV>
- Wilhelm, M (8/7/2017). Pick Better Guide Dogs By Watching Hours of Cute Puppy Videos. *Wired*. <https://bit.ly/32mquWq>
- Guglielmi, G (8/7/2017). Coddled puppies make poor guide dogs, as this adorable video shows. *Science*. <https://bit.ly/2uQh7sr>
- Casey, M (7/22/2015). Too much stress sends some dogs into a tailspin. *CBS News*. <https://cbsn.ws/3nADwb0>

OTHER COMMUNITY SCIENCE OUTREACH

- | | |
|---|------------|
| Students as Peers participant with Animal Cognition and Behaviour course (University of Rijeka) | March 2021 |
| - Corresponded with students and answered questions about one of my first-author papers. | |
| Canine Companions for Independence, National Puppy Program Workshop | Oct 2020 |
| - Presented research involving assistance dogs and participated in a Q + A with Canine Companions puppy raisers | |
| American Association of University Women (AAUW) Girls in Engineering, Math, and Science (GEMS) | Jan 2019 |
| - Presented my research to and participated in a panel discussion for the local AAUW GEMS group. | |
| Interactive research presentations to elementary school children | |
| - Penn Alexander School (3 rd grade; part of “Women in Science” unit) | March 2017 |
| - Ashley Park PreK-8 School (2 nd grade) | Jan 2014 |
| - Central Park School for Children (1 st grade) | Aug 2012 |