

Allison B. Kaufman

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South Glastonbury, CT 06073
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Education

- 2010** University of California at Riverside
Riverside, California
Ph.D., Neuroscience
Ecology and Evolutionary Biology Graduate Research Unit
Advisor: Dr. Curt Burgess
Dissertation: "Assessing Animal Vocalizations Using the
Hyperspace Analog to Language (HAL) Model"
- 2000** Rutgers University, Cook College
New Brunswick, New Jersey
- B.S., Biology
Magna Cum Laude
- B.S., Natural Resource Management
Magna Cum Laude
Undergraduate Honors Thesis - "Reinforcement Used in the
Training of Captive Seals"

Employment

- 2013 – present** University of Connecticut
Storrs, CT
Department of Ecology and Evolutionary Biology
Research Scientist
- 2025 – present** University of Connecticut
Storrs, CT
Department of Ecology and Evolutionary Biology
Adjunct Professor
- 2024 – present** Busch Gardens Williamsburg
Williamsburg, VA
Associate Animal Care Specialist, Highland Stables

2024 – present	Virginia Living Museum Newport News, VA Research Fellow
2025	Roger Williams Park Zoo Providence, RI Animal Ambassador Program Specialist Research Volunteer
2024	AnimalConcepts External Global Collaborator
2013 – 2024	Mystic Aquarium Mystic, CT Husbandry volunteer, marine mammals and birds (3300+ hours)
2023	University of Connecticut Storrs, CT Department of Animal Science Adjunct Professor
2021	Brookfield Zoo, Chicago Zoological Society Chicago, IL Marine Mammal Curator Intern (virtual)
2021 – 2022	Lutz Children's Museum Manchester, CT Curator of Natural Sciences Animal Care Specialist Educator Curriculum Specialist
2020 - 2021	Eastern Connecticut State University Willimantic, CT Department of Biology Adjunct Professor
2019 - 2021	Manchester Community College Manchester, CT Department of Psychology Adjunct Professor

- 2014 – 2019** University of Connecticut, Avery Point
Groton, CT
Departments of Psychology and Marine Science
Adjunct Professor
- 2009 – 2013** California State University, San Bernardino
San Bernardino, CA
Department of Psychology
Adjunct Professor
- 2004 – 2009** University of California, Riverside
Riverside, California
Departments of Biology and Cell Biology/Neuroscience
Teaching Assistant

Publications

(work conducted before May, 2002 was as Allison B. Katz)

Books

Kaufman, A.B. and J.C. Kaufman, eds. (under contract). *Pseudoscience: The conspiracy against science*, 2nd Edition. Boston, MA: MIT Press.

Kaufman, A.B., Call, J., and J.C. Kaufman, eds. (2021). *Cambridge Handbook of Animal Cognition*. Cambridge University Press.

Kaufman, A.B., Bashaw, M.J, and T. Maple, eds. (2019). *The scientific foundation of zoos and aquariums: Their role in conservation and research*. Cambridge, UK: Cambridge University Press.

Colbert-White, E.N., and A.B. Kaufman. (2019). *Animal Cognition 101*. Psychology 101 series, Springer Publishing.

Kaufman, A.B. and J.C. Kaufman, eds. (2017). *Pseudoscience: The conspiracy against science*. Boston, MA: MIT Press.

* Reviewed in *American Journal of Psychology*, *Choice*, *The Dwight Lilly Show*, *The Inquisitive Biologist*, *NHBS*, *Science Based Medicine*, *The Skeptic*, *The Skeptical Inquirer*

* Winner, 2018 *Choice Outstanding Academic Title*

Kaufman, A. B., and J.C. Kaufman, eds. (2015). *Animal creativity and innovation*. San Diego, CA: Academic Press.

Articles

- Sorensen, B., Jaworski, K., Heller, L., Niebuhr, D.H. & Kaufman, A. B. (2026). Training and enrichment of ectotherms. *Frontiers in Ethology*, 5:1799441.
- Sorensen, B., Xie, L., Bridgman, C., Heller, L., Niebuhr, D.H., & Kaufman, A.B. (under review). Analysis of the effects of enrichment on animals at the Virginia Living Museum. *Frontiers in Ethology*.
- Ciletti, J., & Kaufman, A.B. (in preparation). Training novel vocalizations in a beluga whale (*Delphinapterus leucas*)
- Kaufman, A. B., & Kaufman, J. C. (in preparation). Fluency, flexibility, originality, and elaboration: Using trained raters and adapting methods from the Torrance Tests of Creative Thinking to score animals trained to innovate behaviors.
- Kaufman, A.B. (under review). The Theory of Universal Grammar – Unarguable, Unstoppable, Unrelenting, Uncompromising, and Unprovable. *Lingua*.
- Kaufman, A.B., Reynolds, M, and A.S. Kaufman. (2019). The structure of ape (*Hominoidea*) intelligence. *Journal of Comparative Psychology*. 133(1):92-105.
- Kaufman, J.C. and A.B. Kaufman. (2016). Capacity, potential, and ability: Integrating different approaches to studying animal vs human creative processes. *RUDN Journal of Psychology and Pedagogics*. 4:29-36.
- Kaufman, A.B. (2014). Let's talk about Citizen Science: What *doesn't* work. *Animal Behaviour and Cognition*. 1:442-447.
- Kaufman, A.B., and J.C. Kaufman. (2014). Applying theoretical models of human creativity to animal studies. *Animal Behaviour and Cognition*.1: 77-89.
- Kaufman, A.B., Colbert-White, E.N., and R. Rosenthal. (2014). A novel rater agreement methodology for language transcriptions: Evidence from a nonhuman speaker. *Quality and Quantity*. 48: 2329-2339.
- Kaufman, A.B., Colbert-White, E.N., and C. Burgess. (2013). Higher-order syntactical structures in an African Grey parrot's vocalizations: Evidence from the Hyperspace Analog to Language (HAL) model. *Animal Cognition*. 16: 789-801.
- Kaufman, A.B., Green, S.R., Seitz, A.R., and C. Burgess. (2012). Using a Self-Organizing Map (SOM) and the Hyperspace Analog to Language

- (HAL) model to identify patterns of syntax and structure in the songs of humpback whales. *International Journal of Comparative Psychology*. 25: 237-275.
- Kaufman, A.B., Butt, A.E., Kaufman, J.C., and E. N. Colbert-White (2011). Towards a neurobiological model of creativity in animals. *Journal of Comparative Psychology*. 125: 255-272
- Kaufman, A.B., and R. Rosenthal. (2009). Can you believe my eyes? The importance of inter-observer reliability statistics in observations of animal behaviour. *Animal Behaviour*. 78: 1487-1491.
- Kaufman, A. B. (2004). A model for creativity in animals: Its development and some applications for marine animals. *Soundings: The Quarterly Publication of the International Marine Animal Trainers Association*. 29, 8 - 11.
- Kaufman, J.C., and A. B. Kaufman. (2004). Applying a creativity framework to animal cognition. *New Ideas in Psychology*. 22, 143 – 155.

Chapters

- Kaufman, A.B. (2021). Innovation in Marine Mammals. In: A.B. Kaufman, J. Call, and J.C. Kaufman (eds), *The Cambridge Handbook of Animal Cognition*. New York: Cambridge University Press.
- Kaufman, A.B. and M. Pagel. (2018). Feedback in Animals. In: A. Lipnevick and J. Smith (eds), *The Cambridge Handbook of Educational Feedback*. New York: Cambridge University Press.
- Kaufman, A.B. and W. J. O'Hearn. (2017). Animal Creativity. In: J. C. Kaufman, V. P. Glaveanu and J. Baer (eds), *The Cambridge Handbook of Creativity Across Disciplines*. New York: Cambridge University Press.
- O'Hearn, W.J., Kaufman, A.B., and J.C. Kaufman. (2015). Animal Creativity and Innovation: An Integrated Look at the Field. In: A.B. Kaufman and J.C. Kaufman (eds.), *Animal Creativity and Innovation* (pp. 501-506). Waltham, MA: Academic Press.
- Kaufman, A.B., Kornilov, S.A., Bristol, A.S., Tan, M., and E.L. Grigorenko. (2010). The neurobiological foundations of creative cognition. In: J.C. Kaufman and R.J. Sternberg (eds.), *Cambridge Handbook of Creativity* (pp. 216-232). New York: Cambridge University Press.

- McCowan, B., Doyle, L. R., Kaufman, A.B., Hanser, S. F., and C. Burgess. (2008). Detection and estimation of complexity and contextual flexibility in nonhuman animal communication systems. In: U. Griebel and K. Oller (eds.), *Evolution of Communicative Flexibility: Complexity, Creativity, and Adaptability in Human and Animal Communication* (pp. 281-304). Cambridge, MA: MIT Press.
- Kaufman, J. C., Plucker, J. A., Dow, G. T., Baer, J., Andrews, C. J., Mitchell, E. R., and A.B. Kaufman. (2006). Creativity and the special education student. In E. Fletcher-Janzen & C. R. Reynolds (Eds), *Special Education Almanac* (pp. 369-390). New York: John Wiley.
- Kodrlová, I., Kaufman, A. B., Kaufman, J. C., Čermák, I., and C. Burgess. (2005). Analýza deníků Sylvie Plathové pomocí HAL. (Analyses of Sylvia Plath's journals with the help of HAL). In M. Miovisky, I. Cermak, & Vladimír Chrz (Eds.), *Kvalitativní přístup a metody ve vědách o člověku IV*. Olomouc, Czech Republic: Olomouc.

Book Reviews

- Kaufman, A.B. and J.C. Kaufman. (2009). Review of Scenario Visualization by Robert Arp. *American Journal of Biology*. 21, 139-140.
- Kaufman, A.B. (2007). An Overview of the Neuroscience of Creativity: Review of Creativity and the Brain by Kenneth M. Heilman. *Psychology of Aesthetics, Creativity, and the Arts*, 1(4), 250 –251.

Encyclopedia Entries

- Kaufman, A.B. (2008). Baja California. In M. Lück (Ed.). *Encyclopedia of Tourism and Recreation in Marine Environments* (pp. 46-47). Wallingford, UK: CAB International.
- Kaufman, A.B. (2008). Clicks. In M. Lück (Ed.). *Encyclopedia of Tourism and Recreation in Marine Environments* (pp. 92). Wallingford, UK: CAB International.
- Kaufman, A.B. (2008). Educational Cruises. In M. Lück (Ed.). *Encyclopedia of Tourism and Recreation in Marine Environments* (pp. 150-151). Wallingford, UK: CAB International.
- Kaufman, A.B. (2008). Intergovernmental Oceanographic Commission. In M. Lück (Ed.). *Encyclopedia of Tourism and Recreation in Marine Environments* (pp. 234). Wallingford, UK: CAB International.

- Kaufman, A.B. (2008). International Fund for Animal Welfare. In M. Lück (Ed.). *Encyclopedia of Tourism and Recreation in Marine Environments* (pp. 241). Wallingford, UK: CAB International.
- Kaufman, A.B. (2006). Conditional Probability. In N. J. Salkind (Ed.), *Encyclopedia of Measurement and Statistics* (pp. 176-177). London: Sage.
- Katz, A. B. (2003). Acromicric Dysplasia. In E. Fletcher Janzen & C. R. Reynolds (Eds.), *Childhood Disorders Desk Reference* (pp. 8-9). New York: Wiley.

Presentations

- Ciletti, J. and A.B. Kaufman (2024, April). Training novel vocalizations in a Beluga whale (*Delphinapterus leucas*). The International Marine Animal Trainers Association.
 ** 2nd place, "Training" category
 ** Winner, best abstract
 ** Featured in Soundings: The Publication of the International Marine Animal Trainer's Association, Volume 50, Issue 3, 2025
- Kaufman, A.B., and J.C. Kaufman (2021, September). Animal Innovation. Invited keynote at The International Conference on Computational Creativity, Mexico City, Mexico.
- Kaufman, A.B. (2016, August). *Biological roots of creativity: From neuroscience to ecology and evolution*. Invited talk at Pontificia Universidad Catolica de Chile, Santiago, Chile.
- Kaufman, A.B. (2015, November). *Innovation and Tool Use in Animals*. Invited talk at the Connecticut Parrot Society, Berlin, Connecticut.
- Kaufman, A.B., and J.C. Kaufman. (2014, November). *The Psychology of Animal Creativity*. Invited talk at Western Connecticut State University.
- Kaufman, A.B. (2014, November). *Innovation Abilities in Animals and Their Necessity for Survival in Global Climate Change*. Talk presented for The Global Café at The University of Connecticut, Avery Point.
- Yeater, D., Kaufman, A.B., Dudzinski, K.M., and D.K. Melzer. (2014, August). *Who trains what and whom?* Poster presented at the *Animal Behavior Society*, Princeton, NJ.

- Kaufman, A.B. (2014, January). *The neuropsychological roots of creativity*.
Invited talk at Nanyang Technical University, Singapore
- Kaufman, A.B. (2013, May). Creativity and animals: A cognitive and neurological model. Invited talk at Shaanxi Normal University, Xi'an, China.
- Kaufman, A. B., Reynolds, M.R. and A.S. Kaufman. (2013, August).
Psychometric analysis of the abilities of apes and 2.5 year olds. Paper presented at *American Psychological Association*, Honolulu.
- Kaufman, A.B. (2007, November). *The neuropsychological roots of creativity*.
Invited talk given at National Kaohsiung Normal University, Kaohsiung, Taiwan.
- Kaufman, A.B., Butt, A.E., and J.C. Kaufman. (2007, November). Creativity and animals: A cognitive and neurological model. Talk presented at the *Society for Neuroscience Convention*, San Diego.
- Burgess, C. and A.B. Kaufman. (2007, November). Examining the evidence for recursion in animals. Poster presented at the *Psychonomics Society Convention*, Long Beach.
- Kaufman, A. B., Burgess, C., Chakravartty, A., and B. McCowan. (2006, November). HAL meets flipper: Modeling of marine mammal vocalizations in high dimensional semantic space. Poster presented at *Psychonomics Society Conference*, Houston.
- Kaufman, A. B., Burgess, C., and B. McCowan. (2006, August). Modeling Marine Mammal Vocalizations in High-Dimensional Semantic Space. Poster presented at *American Psychological Association*, New Orleans.
- Kaufman, A. B., Butt, A. E., and J.C. Kaufman. (2006, August). Creativity in Animals: A Cognitive and Neurological Model. Poster presented at *American Psychological Association*, New Orleans.
- Kaufman, A. B., Burgess, C., and B. McCowan. (2005, November). HAL "sleeps with the fishes": Modeling of marine mammal vocalizations in high dimensional semantic space. Poster presented at the *Society for Computers in Psychology (SCiP) Conference*, Toronto, Ontario, Canada.
- Kaufman, A. B., Burgess, C., and B. McCowan. (2005, December). HAL meets flipper: Modeling of marine mammal vocalizations in high dimensional semantic space. Poster presented at the *Society for Marine Mammalogy Conference*, San Diego, California.

Kaufman, A.B. (2005, May). *Creativity and Linguistic Modeling in Animals*.
Invited talk at National Yang Ming University, Taipei, Taiwan.

Kaufman, A.B. (2005, May). *Creativity and Linguistic Modeling in Marine Mammals*. Invited talk at National Taiwan University, Taipei, Taiwan.

Kaufman A. B., Kodrlová, I., Čermák, I., and C. Burgess. (2005, January). HAL (The Hyperspace Analog to Language Model). Poster presentation at *IV. ročník česko-slovenské konference Kvalitativní přístup ve výzkumu ve vědách o člověku & II. ročník konference Kvalitativní přístup v adiktologickém výzkumu*, Olomouc, Czech Republic.

Kodrlová, I., Kaufman A. B., Kaufman, J. C., Čermák, I., and C. Burgess. (2005, January). Analýza deníků Sylvie Plathové pomocí HAL (The Hyperspace Analog to Language Model). Presented at *IV. ročník česko-slovenské konference Kvalitativní přístup ve výzkumu ve vědách o člověku & II. ročník konference Kvalitativní přístup v adiktologickém výzkumu*, Olomouc, Czech Republic.

Kaufman, A.B. (2004, March). *A model for creativity in animals: Its development and applications*. Invited talk at Akdeniz University, Antalya, Turkey.

Kaufman, A. B. (2003, November). A model for creativity in animals: Its development and some applications for marine animals. Presented at the *International Marine Animal Trainers Association (IMATA) Conference*, Long Beach, California.

Grants

Creating an Insect Exhibit at the Lutz Children's Museum.

- Written to convert half of the Nature Center at the Lutz Children's Museum into an interactive exhibit space showcasing invertebrates.
- Funded for \$803.00 in 2021.

Editorial Activities

Associate Editor: *Frontiers in Ethology*, 2026 - present

Editorial Board: *International Journal of Creativity and Problem Solving*

Manuscript Reviewer: Jossey-Bass; McGraw Hill Publishers; Worth Publishing

Ad Hoc Reviewer: *Animal Behaviour*, *Animal Cognition*, *Aquatic Mammals*, *Behavioural Processes*, *International Journal of Biodiversity and Conservation*, *International Journal of Comparative Psychology*, *Journal of Applied Animal Welfare Science*, *Journal of Creative Behavior*, *Learning and Individual Difference*, *Neurocase*, *Perceptual and Motor Skills*, *Psychology of Popular Media Culture*, *Psychological Assessment*, *Psychological Reports*, *PNAS Nexus*, *Science*

Media

Critical Thinking. 2021. The Helyx Show Student Podcast.

Langley, Liz. (2018). Can animals be creative? Pigcasso the painting pig is Making her case. National Geographic's Weird Animal Questions of the Week. <https://news.nationalgeographic.com/2016/02/animals-culture-pigs-art-painting/>

Genie et folie: L'oeuf ou la Poule? (Engineering and Madness: The chicken or the egg?). 2017. Le Cercle Psy. (in French)

Noach and Zoos 2016/5777. 2016. Parshacast.

Animal Cognition. 2016. The Brainwaves Video Anthology.

Language Capabilities in Animals. 2016. The Brainwaves Video Anthology

60 Seconds with Allison Kaufman. 2016. The Brainwaves Video Anthology.

Animal Creativity and Innovation. 2016. The Brainwaves Video Anthology.

Animal Love Stories. 2013. BBC Natural World documentary series.
Consultant.

Media Review for *Discovering Biological Psychology*, by Laura Freberg,
Cengage Publishing

Animal Artists. Interview aired on June 30, 2006 on *Studio 360*, a National Public Radio program.

Professional Organizations and Service

ACE (Advancing Conservation through Empathy) for Wildlife
- Member of Conservation Action Committee
ZANE, Zoos and Aquariums for a Neurodiverse Ecosystem

AZA, American Zoo and Aquarium Association

- Member of Research and Technology Board standing committee
- Member of Social Science Research and Evaluation Group Science Advisory Group
- Contributor to Social Science Research Agenda

IMATA, International Marine Animal Trainer's Association

The Society for Marine Mammalogy

Professional Certifications

State of Connecticut licensed wildlife rehabilitator (2023)

SSI Open Water Diver SCUBA certification (2023)

Other Teaching/Work Experience

2014 - 2019	Carolina Loving Hound Rescue Greenville, SC Board Member of Hound Rescue organization
2002 – 2003	San Bernardino County Museum Redlands, California Animal care and education specialist
2000	The New York Aquarium Brooklyn, NY Instructor, education department
1997 - 2001	New Jersey State Aquarium (now Adventure Aquarium) Camden, NJ Intern, volunteer, temporary staff; seal and penguin team
1999 – 2000	The Douglass Project for Rutgers Women in Math, Science, and Engineering New Brunswick, NJ Program assistant
1995 – present	Girl Scouts of the USA (adult member) East Brunswick, NJ; Redlands, CA; and Hartford, CT Troop leader (all ages), Trainer (specializing in leadership, age level, outdoors), Committee Chair, Representative on International committees (including UN Non-Governmental Organizations), Co-Chair Friends of Sangam USA (international fundraising organization)