

LORI MARINO, PHD

CONTACT INFORMATION

4100 Kanab Canyon Road
Kanab, Utah 84741
lorimarino@kimmela.org

CURRENT POSITIONS

Founder and President, The Whale Sanctuary Project (2016 – present)
Founder and Executive Director, The Kimmela Center for Animal Advocacy (2011 – present)

EDUCATION

PhD Biopsychology, State University of New York at Albany (1995)
Thesis: Brain-behavior relationships in cetaceans and primates: Implications for the evolution of complex intelligence.
MA Experimental Psychology, Miami University, Ohio (1989)
BA Psychology, Biology minor, Honors in Psychobiology, New York University (1982)

INTERESTS

Animal behavior
Cognitive ethology
Evolution of the brain and intelligence
Brain-behavior relationships
Self-awareness and intelligence in other animals
Human relationships with other animals
Animal protection and conservation
Bioethics
Astrobiology and evolutionary paths to intelligence

PREVIOUS ACADEMIC POSITIONS

Emory University, Atlanta, Georgia

Senior Lecturer, Graduate Institute of Liberal Arts (2011 – 2014)
Faculty, Emory University Center for Ethics (2009 – 2014)
Senior Lecturer, Department of Psychology (2010 – 2011)
Senior Lecturer, Neuroscience and Behavioral Biology Program (2005 – 2010)
Lecturer, Neuroscience and Behavioral Biology Program (1997 – 2005)
Affiliate Faculty, Living Links Center for the Advanced Study of Ape and Human Evolution

VISITING AND ADJUNCT APPOINTMENTS

Online Instructor, Humane Society University, Humane Society of the United States (2012 – 2015)
Adjunct Faculty, Department of Biological Sciences, Northern Arizona University (2010 – 2011)

Visiting Assistant Professor, Departments of Biology and Anthropology, Emory University (1995 – 1998)

Research Affiliate, Departments of Paleobiology, Vertebrate Zoology, and Anthropology, National Museum of Natural History, The Smithsonian Institution, Washington DC

Comparative Mammalian Brain Collection, National Museum of Health and Medicine, Wash DC
Behavioral ecological studies of bottlenose dolphins off the southeastern U.S. coast with *The Dolphin Project*, 1996 – 1997

Museum of Natural History, University of Georgia

Museum of Vertebrate Zoology, University of California, Berkeley

Department of Ornithology and Mammalogy, California Academy of Sciences

GRANTS

SUNY College at Oneonta Faculty Research and Creative Activity Grant (2011) Grant Title: A Comparison of Public and Scientific Concern for Hydrofracking, Factory Farming, and Marine Mammal Captivity: Is Public Concern Consistent with or Doubtful about Scientific Understandings? (Gregory Fulkerson, Brian Lowe, William Wilkerson, Brett Heindl, Lori Marino).

NASA Astrobiology Institute Conference and Workshop Fund Award (2009)

Grant Title: Virtual Workshops on the Study of Intelligence in Astrobiology
(Kathryn Denning, co – PI)

NASA Astrobiology Institute Director's Discretionary Fund Award (2008)

Grant Title: A Virtual Resource Center for Interdisciplinary Inquiry into Intelligent Life (Kathryn Denning, co – PI)

Faculty Science Council, Emory University (summer 2007) Development grant for course on *Animal Welfare*

National Science Foundation (start date 3/2007)

Grant Title: Systematics and evolution of living and fossil delphinidans (dolphins, porpoises, and kin) Collaborator (John Gatesy and Jonathan Geisler, PIs)

Emory University Research Committee

Grant Title: Analysis of cortical organization in dolphins
Principal Investigator, (2004 –2005)

Kellogg Fund, National Museum of Natural History, The Smithsonian Institution

Grant Title: Evidence for echolocation abilities from cetacean skulls (2004)

National Science Foundation

Grant Title: Computed tomography of endocranial morphology in fossil Cetacea
Principal Investigator (Mark D. Uhen, Co – PI), (2001 – 2004)

Carl Sagan Center for the Study of Life in the Universe, SETI Institute

Grant Title: Trends in encephalization: A route to investigating F_i
Co-Principal Investigator (Daniel McShea, Co – PI), (2002 – 2003)

Emory University Research Committee

Grant Title: Descriptive and morphometric analyses of the bottlenose dolphin brain
Principal Investigator, (1999 – 2000)

Cetacean Society International

Grant Title: Testing self-recognition in the bottlenose dolphin
Principal Investigator (1992 – 1993)

Sigma Xi, The Scientific Research Society

Grant Title: Self-awareness in the bottlenose dolphin: A test of convergent cognitive evolution
Principal Investigator, Years of Funding: (1990 – 1991, 1992 – 1993)

OTHER HONORS AND AWARDS

Humane Canada Leadership and Innovation Award, Victoria, British Columbia (2020)
International Travel Award, Institute for International Travel and Comparative Studies, Emory University (2002, 2004)
Animal Behavior Society Symposium Grant
Faculty Development Award, Emory University
Visiting Research Award, National Museum of Natural History, The Smithsonian Institution

ANIMAL BEHAVIOR, COGNITIVE ETHOLOGY, BRAIN-BEHAVIOR RELATIONSHIPS, EVOLUTION OF THE BRAIN AND INTELLIGENCE, SELF-AWARENESS, ASTROBIOLOGY

Publications

Marino L (2022) Complex brains, complex cognition, complex societies, G. Notarbartolo di Sciara and B. Würsig (eds). *Ethology and Behavioral Ecology of Marine Mammals: The Human Factor*. Springer Nature.

Marino L (2019) Bovine Cognition. In Vonk J., Shackelford T. (eds) *Encyclopedia of Animal Cognition and Behavior*, 10.1007/978-3-319-47829-6_817-1, (1-6).

Marino L (2019) Mental health issues in captive cetaceans. In McMillan FD (ed.), *Mental Health and Well-being in Animals*, 2nd ed. CABI, Oxfordshire, UK, pp 315-327.

- Marino L, Rose N, Visser I, Rally H, Ferdowsian, H & Slootsky V (2019) The harmful effects of captivity and chronic stress on the well-being of orcas (*Orcinus orca*). *Journal of Veterinary Behavior*. <https://doi.org/10.1016/j.jveb.2019.05.005>
- Marino L (2017) Cetacean cognition. In *Oxford Handbook of Animal Studies*. Ed by L. Kalof. Oxford University Press.
- Berns G, Cook P, Foxley S, Babdi J, Miller KL & Marino L (2015) Diffusion tensor imaging of dolphin brain reveals direct auditory pathway to temporal lobe. *Proceedings of the Royal Society B*, <http://dx.doi.org/10.1098/rspb.2015.1203>
- Marino L (2015) The landscape of intelligence. *Proceedings of the NASA/Library of Congress Astrobiology Symposium: Preparing for Discovery*. Wash DC: Library of Congress. pp. 95 – 112.
- Marino L (2015) The evolution of F_i . In *The Drake Equation: Estimating the Prevalence of Extraterrestrial Intelligence Through the Ages*. Ed By D Vakoch. Cambridge University Press. pp. 181 – 204.
- Marino L (2015) The brain – structure and function. In *Dolphin Communication and Cognition*. Ed By C Johnson and D Herzing, MIT Press. pp. 3 – 18.
- Marino L (2014) Intelligence. In *Encyclopedia of Astrobiology*. Springer Reference.
- Marino L (2014) The Evolution of Intelligence. In *Encyclopedia of Astrobiology*. Springer Reference.
- Preslar J, Kuschner H, Marino L, & Pearce, B (2014) Autism, lateralization and handedness: A review of the literature and meta-analysis. *Laterality*, 19(1): 64 – 95.
- Montgomery SH, McGowen MR, Fox C, Marino L & Gatesy J (2013) The evolutionary history of cetacean brain and body size. *Evolution* 67(11): 3339-3353.
- Marino, L (2011) Cetaceans and primates: Convergence in intelligence and self-awareness. *Journal of Cosmology*, 14: 1063 – 1079.
- Marino, L (2011) Brain structure and intelligence in cetaceans. *Whales and Dolphins: culture, cognition and conservation*. Ed By P Brakes, MP Simmonds, C Bass. pp. 115 – 128.
- Sarko D, Domning D, Marino L, & Reep R (2010) Estimating body size of fossil Sirenians. *Marine Mammal Science*. 26(4): 937 – 959.

Marino L (2010) Sentience. *Encyclopedia of Animal Behavior*, Vol. 3. Ed by M Breed & J Moore. Academic Press, Oxford, pp. 132 – 138.

Marino L (2009) Brain size evolution. In *Encyclopedia of marine mammals*, Ed by WF Perrin, B Wursig, H Thewissen (2nd ed) San Diego, Academic Press, pp. 149 – 152.

Marino L, Butti, C, Connor RC, Fordyce, RE, Herman LM, Hof PR, Lefebvre L, Lusseau D, McCowan B, Nimchinsky EA, Pack AA, Reidenberg JS, Reiss D, Rendell L, Uhen MD, Van der Gucht E, & Whitehead H (2008) A claim in search of evidence: Reply to Manger's thermogenesis hypothesis of cetacean brain structure. *Biological Reviews of the Cambridge Philosophical Society*, 83: 417 – 440.

Montie, EW, Ketten DR, Schneider G, Marino L, Touhey KE, & Hahn ME (2008) Volumetric neuroimaging of the Atlantic white-sided dolphin (*Lagenorhynchus acutus*) brain from *in situ* magnetic resonance images. *The Anatomical Record*, 291: 263 – 282.

Marino L (2008) Cetacean brains. In *The Encyclopedia of Neuroscience* (v2), Ed by L Squire. Elsevier, 807 – 810.

Montie EW, Ketten DR, Schneider G, Marino L, Touhey KE, & Hahn ME. (2007) Neuroanatomy of the subadult and fetal brain of the Atlantic white-sided dolphin (*Lagenorhynchus acutus*) from *in situ* magnetic resonance images. *The Anatomical Record*, 290: 1459 – 1479.

Marino L, Connor RC, Fordyce, RE, Herman LM, Hof PR, Lefebvre L, Lusseau, McCowan B, Nimchinsky EA, Pack AA, Rendell L, Reidenberg JS, Reiss D, Uhen MD, Van der Gucht E, & Whitehead H. (2007) Cetaceans have complex brains for complex cognition. *Public Library of Science (PLOS) Biology*, 5(5): e139.

Marino L (2007) Cetacean brains: How aquatic are they? *The Anatomical Record*, 290: 694 – 700.

Marino L (2006) Absolute brain size: Have we thrown the baby out with the bathwater? Invited commentary in *Proceedings of the National Academy of Sciences USA*, 103(37): 13563 – 13564.

Marino L, Sol D, Toren K, & Lefebvre L (2006) Does diving limit brain size in cetaceans? *Marine Mammal Science*. 22(2): 413 – 425.

Marino L (2006) Cetacean brain evolution. In *Evolution of nervous systems in mammals*, V 3 Ed by L Krubitzer, JH Kaas. Elsevier. Oxford, UK, pp. 261 – 266.

- Marino L (2006) Evolution of the brain and cognition in cetaceans. In *Evolutionary cognitive neuroscience*. Ed by SM Platek, JP Keenan, TK Shackelford. MIT Press. Cambridge, MA, pp. 163-193.
- Marino L & Hof P (2005) Nature's experiments in brain diversity. *The Anatomical Record*. 287A: 997 – 1000.
- Hof P, Chanis R, & Marino, L (2005) Cortical complexity in cetacean brains. *The Anatomical Record*. 287A: 1142 – 1152.
- Marino L (2005) Big brains do matter in novel environments. Invited commentary in *Proceedings of the National Academy of Sciences USA*. 102(15): 5306 – 5307.
- Marino L, McShea D, & Uhen MD (2004) The origin and evolution of large brains in toothed whales. *The Anatomical Record*. 281A: 1247 – 1255.
- Marino L, Sherwood CC, Tang CY, Delman BN, Naidich TP, Johnson JI, & Hof PR (2004) Neuroanatomy of the killer whale (*Orcinus orca*) from Magnetic Resonance Imaging. *The Anatomical Record*. 281A: 1256 – 1263.
- Marino L (2004) Dolphin cognition. *Current Biology* 14, R910-R911.
- Marino L, Sudheimer K, Pabst D A, McLellan WA, Arshad S, Naini G, & Johnson JI (2004) Anatomical description of an infant bottlenose dolphin, *Tursiops truncatus*, brain from Magnetic Resonance Images. *Aquatic Mammals* 30: 315 – 326.
- Marino L, Pabst DA, McLellan WA, Sudheimer & K, Johnson JI (2004) Neuroanatomical structure of the spinner dolphin (*Stenella longirostris orientalis*) brain from magnetic resonance images. *The Anatomical Record* 279A: 601 – 610.
- Marino L (2004) Cetacean brain evolution – multiplication generates complexity. *International Journal of Comparative Psychology* 17: 1 – 16.
- Marino L (2004) Objectivity in the study of intelligence: the cornerstone of new methods and discoveries. *Proceedings of Bioastronomy 2002 Symposium: Life among the stars*. Ed by R Norris, C Oliver, F Stootman. Astronomical Society of the Pacific, San Francisco, pp. 163 – 193.
- Gosling S, Lilienfeld S, & Marino L (2003) Personality. *Primate psychology: The mind and behavior of human and nonhuman primates*. Ed by D Maestriperi. U. of Chicago Press, pp. 254 – 288.

- Marino L (2003) Can we be too uncertain about uncertainty responses? Invited commentary on target article by Smith et al. The comparative psychology of uncertainty monitoring and comparative metacognition. *Behavioral and Brain Sciences* 26: 317 – 373.
- Marino L, Pabst DA, McLellan WA, Sudheimer K, & Johnson JI (2003) Magnetic resonance images of the brain of a dwarf sperm whale (*Kogia simus*). *Journal of Anatomy* 204: 57 – 76.
- Marino L, Sudheimer K, Sarko D, Sirpenski G, & Johnson JI (2003) Neuroanatomy of the harbor porpoise (*Phocoena phocoena*) from magnetic resonance images. *Journal of Morphology* 257: 308 – 347.
- Marino L, Uhen MD, Pyenson ND, & Frohlich BF (2003) Reconstructing cetacean brain evolution using computed tomography. *The New Anatomist* 272B: 107 – 117.
- Sarko D, Marino L, & Reiss D (2003) A bottlenose dolphin's (*Tursiops truncatus*) responses to its mirror image: further analysis. *International Journal of Comparative Psychology* 15: 69 – 6.
- Marino L, Sudheimer K, Pabst DA, McLellan W A, Filsoof D, & Johnson J I (2002) Neuroanatomy of the common dolphin (*Delphinus delphis*) as revealed by magnetic resonance images (MRI). *The Anatomical Record* 268: 411 – 429.
- Ridgway SH, Marino L, & Lipscomb T (2002) Description of a poorly differentiated carcinoma within the brainstem of a White whale (*Delphinapterus leucas*) from magnetic resonance images and histological analysis. *The Anatomical Record* 268: 441 – 449.
- Marino L (2002) Convergence in complex cognitive abilities in cetaceans and primates. *Brain, Behavior and Evolution* 59: 21 – 32.
- Marino L (2002) Brain size evolution. In *Encyclopedia of marine mammals*, Ed by WF Perrin, B Wursig, H Thewissen. San Diego, Academic Press, pp. 158 – 162.
- Marino L, Sudheimer K, Murphy TL, Davis KK, Pabst DA, McLellan W, Rilling JK, & Johnson JI (2001) Anatomy and three-dimensional reconstructions of the bottlenose dolphin (*Tursiops truncatus*) brain from magnetic resonance images. *The Anatomical Record* 264: 397 – 414.
- Reiss D & Marino L (2001) Self-recognition in the bottlenose dolphin: A case of cognitive convergence. *Proceedings of the National Academy of Sciences USA* 98 (10): 5937 – 5942.
- Marino L (2001) Cetaceans would be an interesting comparison group. Invited commentary on target article by Finlay et al. Developmental structure in brain evolution, *Behavioral and Brain Sciences* 24: 290-291.

- Marino L, Murphy TL, Gozal L, & Johnson JI (2001) Magnetic resonance imaging and three-dimensional reconstructions of the brain of the fetal common dolphin, *Delphinus delphis*. *Anatomy and Embryology* 203: 393 – 402.
- Marino L, Murphy TL, DeWeerd AL, Morris JA, Ridgway SH, Fobbs AJ, Humblot N, & Johnson J I (2001) Anatomy and three-dimensional reconstructions of the brain of a white whale (*Delphinapterus leucas*) from magnetic resonance images (MRI). *The Anatomical Record* 262: 429 – 439.
- Marino L (2000) Turning the empirical corner on F_i : the probability of complex intelligence. In *A new era in bioastronomy*, Ed by GA Lemarchand. San Francisco, Astronomical Society of the Pacific Conference Series, pp. 431 – 435.
- Marino L, Rilling JK, Lin SK, & Ridgway SH (2000) Relative volume of the cerebellum in the bottlenose dolphin and comparison with anthropoid primates. *Brain, Behavior, and Evolution* 56: 204 – 211.
- Marino L, Uhen MD, Frohlich B, Aldag JM, Blane C, Bohaska D, & Whitmore Jr FC (2000) Endocranial volume of mid-late Eocene archaeocetes (Order: Cetacea) revealed by computed tomography: Implications for cetacean brain evolution. *Journal of Mammalian Evolution* 7: 81 – 94.
- McCowan B, Marino L, Vance E, Walke L, & Reiss D (2000) Bubble ring play of bottlenose dolphins: Implications for cognition. *Journal of Comparative Psychology* 114: 98 – 106.
- Hopkins W & Marino L (2000) Asymmetries for cerebral width in nonhuman primates as revealed by magnetic resonance imaging. *Neuropsychologia* 38: 493-499.
- Marino L (1999) Brain growth in the harbor porpoise (*Phocoena phocoena*) and Pacific white-sided dolphin (*Lagenorhynchus obliquidens*). *Journal of Mammalogy* 80: 1353 – 1360.
- Lilienfeld S, Gershon J, Duke M, Marino L, & de Waal FBM (1999) A preliminary investigation of the construct of psychopathic personality (psychopathy) in common chimpanzees (*Pan troglodytes*). *Journal of Comparative Psychology* 113: 365 – 375.
- Marino L (1998) Brain growth patterns in the La Plata River dolphin (*Pontoporia blainvillei*). *Aquatic Mammals* 24: 111 – 116.
- Marino L (1998) Quantifying brain-behavior relations in cetaceans and primates. Correspondence in *Trends in Ecology and Evolution* 13 (148): 408.

- Marino L (1998) A comparison of encephalization between odontocete cetaceans and anthropoid primates. *Brain, Behavior, and Evolution* 51: 230 – 238.
- Hopkins W, Marino L, Rilling J, & MacGregor L (1998) Planum temporale asymmetries in great apes as revealed by magnetic resonance imaging (MRI). *NeuroReport* 9: 2913 – 2918.
- Marino L & Stowe J (1997) Lateralized behavior in a captive beluga whale (*Delphinapterus leucas*). *Aquatic Mammals* 23: 101 – 103.
- Reiss D, McCowan B, & Marino L (1997) Communicative and other cognitive characteristics of bottlenose dolphins. *Trends in Cognitive Sciences* 1: 140 – 145.
- Marino L & Stowe J (1997) Lateralized behavior in two captive bottlenose dolphins (*Tursiops truncatus*). *Zoo Biology* 16: 173 – 177.
- Marino L (1997) The relation between encephalization level, gestation length, and body weight in odontocetes (toothed whales). *Marine Mammal Science* 13: 133 – 138.
- Marino L (1997) Brain-behavior relations in primates and cetaceans: Implications for the ubiquity of factors leading to the evolution of complex intelligence. *Astronomical and biochemical origins and the search for life in the universe*. Ed by CB Cosmovici, S Bowyer, D Werthimer. Editrice Compositori, Italy, pp.553 – 560.
- Marino L (1996) What can dolphins tell us about primate evolution? *Evolutionary Anthropology* 5: 81 – 85.
- Gallup Jr GG, Marino L, & Eddy T (1996) Anthropomorphism and the evolution of social intelligence: A comparative approach. In *Anthropomorphism, anecdotes, and animals*. Ed by R Mitchell, N Thompson, L Miles. State University of New York, University at Albany Press, pp. 77 – 91.
- Reiss D & Marino L (1995) Self-view television as a test of self-awareness: Only in the eye of the beholder? Reply to K. Marten and S. Psarakos. Using self-view television to distinguish between self-examination and social behavior in the bottlenose dolphin (*Tursiops truncatus*). *Consciousness and Cognition* 4: 235 – 238.
- Marino L, Reiss D, & Gallup Jr GG (1994) Mirror self-recognition in bottlenose dolphins: Implications for comparative investigations of highly dissimilar species. *Self awareness in animals and humans: Developmental perspectives*. Ed by S Parker, R Mitchell & M Boccia. New York: Cambridge University Press, pp. 380 – 391.

Marino L (1993) Towards a functional learning paradigm: Translating ecologically valid ideas into a functional empirical methodology. *Journal of Psychology and the Behavioral Sciences* 7: 11 – 22.

Talks/Presentations/Abstracts

2020

Title tbd. Sabine Distinguished Speaker. Dept. of Psychology, Colorado College, Colorado Springs, CO. (April)

2019

The harmful effects of captivity and chronic stress on the well-being of orcas (*Orcinus orca*).
Poster presentation at 2019 World Marine Mammal Science Conference, Barcelona, Spain
(presented by N. Rose)

Large brains in small tanks: The welfare of captive cetaceans. The Ontario Veterinary College
Animal Welfare Forum. Guelph, ON.

Orca brains and intelligence: The evolutionary story. The Whale Museum, Friday Harbor, WA

2018

Who dolphins are. Summer School in Animal Cognition. Univ. of Quebec at Montreal.

Dolphin and whale brains: A challenge for primate-centered views of intelligence. Animals on
the Mind Conference, University of Denver

The search for extraterrestrial intelligence begins on earth. SETI Institute workshop.

2017

Intelligence. Are We Alone? Cambridge Science Festival, Cambridge, MA.

Regarding life: Connection-based teaching about astrobiology (K Denning & L Marino).
Astrobiology Science Conference, Mesa, Arizona.

2016

Learning about intelligence from cetaceans. Dalhousie University, Dept. of Biology, Halifax, Nova Scotia.

The challenge of dolphin and whale brains. Dalhousie University, Centre for Brain Repair, Halifax, Nova Scotia.

A biopsychological perspective on SETI and astrobiology. Cain Conference: The Evolving Search for Life in the Universe. Philadelphia, PA.

2015

Diffusion tensor imaging of dolphin brains reveals direct auditory pathway to temporal lobe. (Berns G, Cook P, Foxley S, Jbabdi S, Miller K, Marino L). Society for Marine Mammalogy Biennial Conference. San Francisco, CA.

Invited presenter in Millstein Science Series: Ocean Locomotion. American Museum of Natural History, NY, NY.

Cetaceans and primates: Convergent themes in cognition. Invited talk for Boston Colloquium for the Philosophy of Science, Boston University.

Dolphin brains: An alternative to complex intelligence in primates. Invited talk at The Institute for Human and Machine Cognition, Ocala, Florida.

Dolphins: Brainiacs of the sea. Invited talk at The Institute for Human and Machine Cognition, Ocala, Florida.

2014

Cognition and awareness in Dogs. Invited talk at Best Friends Animal Society Sanctuary. Kanab, Utah.

The landscape of intelligence. Invited talk at the NASA/Library of Congress Astrobiology Symposium: Preparing for Discovery. Wash DC.

2012

A new conversation about intelligence in the universe (with K. Denning). Astrobiology Science Conference 2012: Exploring Life, Past and Present, Near and Far. Atlanta, GA.

Virtual workshops on the study of intelligence in astrobiology: A status report (with K. Denning).
Astrobiology Science Conference 2012: Exploring Life, Past and Present, Near and Far.
Atlanta, GA.

Trends and the contingency versus convergence debate: A new framework. Astrobiology
Science Conference 2012: Exploring Life, Past and Present, Near and Far. Atlanta, GA.

1991 – 2011

Thinking dolphins. Invited presenter in Millstein Science Series: Under the Sea, Inside the Brain.
American Museum of Natural History, NY, NY (2011).

Project Intelligence: An interdisciplinary approach to the study of intelligence in astrobiology.
Invited talk at University of Colorado, Boulder (2010).

Comparative neuroanatomy in cetaceans and primates: Implications for functional
convergence. Invited talk for Dept of Biology, Northern Arizona University, Flagstaff, AZ
(2010).

The glia-neuron index in the neocortex of Cetartiodactyla and Afrotheria: implications for
mammalian brain evolution. (C Butti, A Bauerfeind, M Spocter, L Marino, P Manger, B
Wicinski, M Raghanti, C Sherwood, P Hof). Annual Meeting of the Society for Neuroscience,
Chicago, Ill., (2009).

Transcending anthropocentrism in astrobiology. AbSciCon 2008: Astrobiology Science
Conference, Santa Clara, CA (2008).

Magnetic resonance imaging: New approaches to study marine mammal health (EW Montie, G
Schneider, L Marino, K Touhey, H Harris, F Nutter, F Gulland) Florida Marine Mammal
Health Conference III, St. Augustine, Fla (2008).

Neuroanatomy and volumetric neuroimaging of the Atlantic white-sided dolphin
(*Lagenorhynchus acutus*) brain from in situ magnetic resonance images (EW Montie, DR
Ketten, G Schneider, L Marino, KE Touhey, ME Hahn) The 17th Biennial Conference on the
Biology of Marine Mammals, Cape Town, South Africa (2007).

Dolphin brains and cognition. Invited lecture in Maymester course entitled *The Biology &
Conservation of Marine Mammals*, Odum School of Ecology, University of Georgia, Athens,
GA (2007, 2008).

The nature of intelligence: Escaping orthogenetic concepts. Invited talk at the Workshop on The
Future of Intelligence in the Cosmos, NASA Ames Research Center, Moffett Field, CA (2007).

Magnetic resonance imaging: A new tool to assess the effects of thyroid hormone disrupting chemicals on brain development in marine mammals (EW Montie, G Schneider, L Marino, MJ Moore, DR Ketten, KE Touhey, A Bogomolni, ME Hahn) The Society of Environmental Toxicology and Chemistry North America 27th Annual Meeting, Montreal, Canada (2006).

Mirrors and other measures of the self. Invited talk at Special Symposium on Comparative Cognition at the Sixteenth Biennial Conference on the Biology of Marine Mammals, San Diego (2005).

Imaging marine mammals. Invited plenary talk for the Sixteenth Biennial Conference on the Biology of Marine Mammals, San Diego (2005).

Third Gordon Research Conference on Neuroethology, Oxford, England (2005) Invited chair of session/discussion leader.

Encephalization in odontocetes: What's being aquatic got to do with it? (L Marino MD Uhen, D McShea). Fourth Tri-Annual Convention on Evolution of Aquatic Tetrapods, Akron, OH (2005).

The evolution of high encephalization levels in odontocetes in relation to the origin of echolocation. (MD Uhen, L Marino). Fourth Tri-Annual Convention on Evolution of Aquatic Tetrapods, Akron, OH (2005).

Comparative neuroanatomy in cetaceans and primates: Implications for functional convergence. American Association of Anatomists Platform Session at Experimental Biology, San Diego, CA (2005).

Smooth-surfaced striatal lobes of the cerebral hemispheres of six species of whales and dolphins. (JI Johnson RC Switzer III, L Marino, FM Ferreira, JA Morris, KD Sudheimer, AJ Fobbs Jr). The Society for Integrative and Comparative Biology Meeting, San Diego, CA (2005).

The origin and evolution of large brains in dolphins (L Marino, D McShea, MD Uhen). The Third Astrobiology Science Conference, Mountain View, CA (2004).

Broca's desert lobe and the corpus striatum in the cerebral hemispheres of six species of whales and dolphins. (JI Johnson, RC Switzer III, L Marino, FM Ferreira, JA Morris, KD Sudheimer, AJ Fobbs Jr). American Association of Anatomists Annual Meeting, Wash. DC, (2004).

Distinctive organization of the basal ganglia in the brains of cetaceans. (JI Johnson, RC Switzer, KD Sudheimer, FM Ferreira, L Marino, AJ Fobbs). The Society for Integrative and Comparative Biology Meeting, New Orleans (2004).

Thinking intelligently about intelligence: The biological nature of human intelligence. National Association of Biology Teachers' Annual Convention, Chicago (2004).

The comparative psychology of dolphins. Invited talk at Georgia State University, Atlanta, GA (2004).

Fifty-million years of cetacean brain and cognitive evolution (so far!). Joint 12th Biennial Meeting of the International Society for Comparative Psychology and 16th Congress of the Spanish Society for Comparative Psychology, Oviedo, Spain (2004).

A research program for the study of the evolution of intelligence. Plenary address at Eighth International Conference on Bioastronomy, Reykjavik, Iceland (2004).

Dolphin brains and cognition. Invited talk at Princeton University, Princeton, NJ (2003).

Neurobiology of whales and dolphins. Invited talk at New York University, NY, NY (2003).

Big trends in big brains. Invited talk at Emory University, Atlanta, GA (2003).

Neurobiology and cognition in whales and dolphins. Invited talk at McGill University. Quebec, Canada (2003).

Brain and intelligence in whales and dolphins. Invited talk for Group for Research and Education in Marine Mammals (GREMM), Center for Interpretation of Marine Mammals, Quebec, Canada (2003).

Reconstructing brain and behavioral evolution in cetaceans and other large-brained species. Invited talk at Florida International University, Miami, FL (2003).

Reconstructing cetacean brain and behavioral evolution. Invited talk at University of California, Davis, Davis, CA (2003).

Reconstructing cetacean brain and behavioral evolution. Invited talk at University of California, Santa Cruz, CA (2003).

A new analysis of trends in cetacean brain evolution. (L Marino, MD Uhen, D. McShea). Biennial Conference on the Biology of Marine Mammals, Greensboro, North Carolina, (2003).

Encephalization trends in cetacean evolution: New data and new analyses. (L. Marino, M. D. Uhen, D. McShea). Annual Meeting of the J. B. Johnston Club in Comparative and Evolutionary Neurobiology, New Orleans, LA (2003).

Comparative Neuroanatomy of the killer whale (*Orcinus orca*) and Amazon river dolphin (*Inia geoffrensis*) from magnetic resonance images. (L Marino, CC Sherwood, CY Tang, BN Delman, TP Naidich, JI Johnson, PR Hof) Annual Meeting of the Society for Neuroscience, New Orleans, LA (2003).

Globus pallidus and substantia nigra form a contiguous “extended pallidum” in brains of whales and dolphins (Cetacea). (JI Johnson, RC Switzer III, KD Sudheimer, FM Ferreira, AJ Fobbs, L Marino). Annual Meeting of the Society for Neuroscience, New Orleans, LA (2003).

Lateralized cerebral peduncles, extensive midbrain pallidum, and other distinctive features of the midbrain of whales and dolphins. (JI Johnson RC Switzer III, KD Sudheimer, FM Ferreira, AJ Fobbs, L Marino). The Society for Integrative and Comparative Biology Meeting, Toronto, Canada (2003).

Evolution of cetacean brains over time, through morphospace, and among lineages. (MD Uhen, L Marino, N Pyenson). Meeting of the Secondary Adaptation of Tetrapods to Life in Water, Dunedin, New Zealand (2002).

Neuroanatomy of the harbor porpoise (*Phocoena phocoena*) as revealed by magnetic resonance imaging. (D Sarko, L Marino, KD Sudheimer, JI Johnson). Annual Meeting of the Society for Neuroscience, Orlando, Fla (2002).

Brain morphometry during cetacean (dolphin, porpoise, and whale) evolution revealed by computed tomography. (L Marino, MD Uhen, ND Pyenson, S Rotenberg, B Shamsai, B Frohlich). Annual Meeting of the Society for Neuroscience, Orlando, Fla (2002).

Extensive chromophilic cell group in the ventral tegmental region and the distinctive spatial configuration of components of the ventral midbrain in dolphins and whales. (JI Johnson, RC Switzer III, KD Sudheimer, FM Ferreira, AJ Fobbs, L Marino). Annual Meeting of the Society for Neuroscience, Orlando, Fla (2002).

Primate and cetacean comparative psychology: A meeting of the minds. International Society for Comparative Psychology Meeting, Chicago, Ill. (2002).

Statistical analysis of encephalization patterns in mammalia: Revisiting trends in the

evolution of intelligence with a new and more direct analytical tool (D McShea, L Marino, MD Uhen). Bioastronomy 2002: International Astronomical Union Symposium 213, Hamilton Island, Australia (2002).

Atlas of the brain of the bottlenose dolphin (*Tursiops truncatus*) using magnetic resonance images and corresponding stained sections. (JI Johnson, KD Sudheimer, L Marino, JK Rilling, TL Murphy, AJ Fobbs). Society for Integrative and Comparative Biology Meeting, Anaheim, CA (2002). Abstract in Integrative and Comparative Biology, 41(6), 1487-1488.

High resolution magnetic resonance imaging of postmortem cetacean brains. Emory University (2002).

Towards a true primate comparative psychology. I Coloquio Internacional Filosofia e Ciencias Cognitiva. Braga, Portugal (2002).

Thinking intelligently about the evolution of intelligence. Invited talk for Fulbright Symposium: Science Education in Partnership, Hamilton Island, Australia (2002).

Objectivity in the study of intelligence: the cornerstone of new methods and discoveries. Invited plenary address at Bioastronomy 2002: International Astronomical Union Symposium 213, Hamilton Island, Australia (2002).

Complex cognitive abilities in cetaceans and primates: insights, implications, and lessons. Conference on Evolutionary Theory, Esalen Center for Theory and Research, Big Sur, CA. (2002).

What self-recognition in the dolphin tells us about self-awareness. Annual Meeting of the Society for Philosophy and Psychology, Alberta, Canada (2002) (with D. Reiss).

Neuropsychology and comparative psychology: Insights from recognizing the essential nature of human and nonhuman brains. Annual Meeting of the Southern Society for Philosophy and Psychology, Nashville, TN (2002)

A dolphin's eye-view of human intelligence. Emory University (2002).

Convergent and divergent characteristics of cetacean and primate brains. Mount Sinai School of Medicine, New York, NY (2002) (invited).

Intelligence in non-humans. International Symposium on Astrobiology, Barcelona, Spain (2002).

Comparative brain evolution in cetaceans and primates. Biennial Conference on the Biology of Marine Mammals, Vancouver, Canada (2002)

Computed tomography of endocranial morphology in fossil cetacea (MD Uhen, L Marino).
Biennial Conference on the Biology of Marine Mammals, Vancouver, Canada (2001).

Look ma – no frontal lobes! The neurobiological implications of convergence in self-
recognition ability in dolphins and hominoids. Annual Meeting of the J. B. Johnston Club in
Comparative and Evolutionary Neurobiology, San Diego, CA (2001).

Comparative morphometric analyses of cetacean brains reveal inter-species variation. Annual
Meeting of the Society for Neuroscience, San Diego, CA (2001).

A 3D atlas of the brain of a bottlenose dolphin in magnetic resonance images (JI Johnson, L
Marino, KD Sudheimer, JK Rilling, KK Davis, TL Murphy, AJ Fobbs). Annual Meeting of the
Society for Neuroscience, San Diego, CA (2001).

Computed tomography of endocranial morphology in fossil cetacea. (MD Uhen, L Marino).
Annual Meeting of the Society for Vertebrate Paleontology, Bozeman, Montana (2001).

Mirror self-recognition in the bottlenose dolphin: a case of cognitive convergence. Biennial
Conference on the Biology of Marine Mammals, Vancouver, Canada (2001) (with D. Reiss).

Dolphin evolution: A non-primate path to complex intelligence. Invited talk at The Krost
Symposium on the Evolution of Intelligence, Texas Lutheran University, Seguin, TX (2001).

Self-recognition in dolphins: what does it mean for primate-centered theories? Emory
University (2001).

Self-awareness in humans and other animals: A comparative-developmental framework.
Annual Convention of the American Psychological Association, San Francisco, CA (2001)

Cetacean brain evolution. Annual Meeting of the J. B. Johnston Club in Comparative and
Evolutionary Neurobiology, New Orleans, LA (2000).

My cerebellum is bigger than yours: relative size of the cerebellum in dolphins and primates. (L
Marino, JK Rilling, S Lin, SH Ridgway). Annual Meeting of the Society for Neuroscience, New
Orleans, LA. (2000).

A 3-D atlas of the brain of a beluga whale in magnetic resonance images (TL Murphy, L
Marino, JA Morris, AL DeWeerd, SH Ridgway, AJ Fobbs, N Humblot, JI Johnson). Annual
Meeting of the Society for Neuroscience, New Orleans, LA (2000).

Primate and cetacean brains: alternative ways to build large brains. Annual Meeting of the Animal Behavior Society, Atlanta, GA (2000).

Comets and predators: Predicting the emergence of intelligence from physical and biological conditions. First Astrobiology Science Conference, National Aeronautics and Space Administration Ames Research Center, Mountain View, CA (2000).

Brain evolution in cetaceans as revealed by endocranial morphology. Annual Meeting of the Society for Integrative and Comparative Biology, Atlanta, GA (2000).

Self-recognition in the dolphin: Implications for primate-centered theories of the self. Emory University (2000).

Evolving brains on this and other planets. Invited talk at Astrobiology '99 Education Symposium sponsored by NASA Life Sciences and NASA Astrobiology Institute, Kohala Coast, HI (1999).

Magnetic resonance imaging of normal and pathological cetacean brains (L Marino, SH Ridgway). Biennial Conference on the Biology of Marine Mammals, Maui, HI (1999).

Cetacean (dolphin, whale, and porpoise) neuroanatomy as revealed by magnetic resonance imaging (L Marino, JK Rilling). Annual Meeting of the Society for Neuroscience, Miami Beach, Fla (1999).

Three-dimensional reconstruction of cetacean (dolphin, whale, and porpoise) brains from postmortem magnetic resonance images. (AJ Fobbs, L Marino, JI Johnson, JA Morris). Annual Meeting of the Society for Neuroscience, Miami Beach, Fla (1999).

Turning the empirical corner on Fi: The probability of complex intelligence. Sixth Bioastronomy Meeting, Kohala Coast, HI (1999).

Neuroimaging of fossil and living marine mammals. Frontiers in Neuroscience colloquium, Emory University (1998).

A comparison of brain and behavior in dolphins and primates. Invited talk for United States Naval Marine Mammal Program, San Diego, CA (1998).

The application of computed tomography to paleoneurology: An example from the study of brain evolution in cetaceans. Annual Meeting of The American Association of Physical Anthropologists, Salt Lake City, Utah (1998) (with B. Frohlich and F. C. Whitmore, Jr.).

Humanlike pattern of asymmetry in the planum temporale of great apes, but not lesser apes or monkeys. Conference on Human Cognitive Specializations: Developmental and Comparative Perspectives, Lafayette/New Iberia, LA (1998).

Evidence for advanced sensorimotor abilities in the bubble ring play of bottlenose dolphins. (E Vance, B McCowan, L Marino, L Walke, D Reiss). Annual Meeting of the Animal Behavior Society, Chicago, Ill (1998).

Geographical Information Systems (GIS) as a tool in population dynamics research. (J Schacke, L Marino). Annual Atlantic Coastal Dolphin Conference, Mote Marine Laboratory, Sarasota, Fla (1998).

Chimpanzee (*Pan troglodytes*) responses to deception in a social bartering situation. (L Marino, W Hopkins, H Smith, C Hyatt). Meeting of the American Society of Primatologists, San Diego, CA (1997).

A comparison of encephalization quotients among modern odontocetes: implications for cognitive capacities. International Symposium on Information Processing by Aquatic Mammals, Marine World, Vallejo, CA (1997).

Comparative brain and life history evolution in cetaceans and primates. Invited talk at University of Florida, Gainesville, FL (1997).

Brain evolution and life history in toothed whales and dolphins. Emory University (1997).

Brain-behavior relations in primates and cetaceans: Implications for the ubiquity of factors leading to the evolution of complex intelligence. International Conference on Bioastronomy: International Astronomical Union Colloquium No. 161: Astronomical and Biochemical Origins and the Search for Life in the Universe, Capri, Italy (1996).

Are dolphins really that smart? Scientific answers to enduring questions. Hughes Undergraduate Science Initiative Interdisciplinary Colloquium, Emory University (1996).

How correlates of brain size in complex mammals inform exobiology. Invited talk at The Scripps Institution of Oceanography, NASA Specialized Center of Research and Training in Exobiology, University of California, San Diego, CA (1995).

Brain-behavior relationships in primates and cetaceans. Emory University (1995).

The relation between encephalization and diving patterns in odontocetes. Biennial Conference on the Biology of Marine Mammals, Orlando, Fla (1995).

Relative brain size is related to diving duration in Odontocetes. Annual Convention of the American Psychological Society, Wash., DC (1994).

A test of self-recognition in the bottlenose dolphin. (L Marino, D Reiss, GG Gallup Jr). Annual Convention of the American Psychological Society, San Diego, CA (1992).

Testing self-recognition in the bottlenose dolphin. (L Marino, D Reiss, GG Gallup Jr) Biennial Conference on the Biology of Marine Mammals, Chicago, Ill (1991).

Responses to mirror exposure: A comparison of chimpanzees and bottlenose dolphins. (L Marino, D Reiss, GG Gallup Jr). Self-recognition and Self-awareness in Monkeys, Apes, and Humans Conference, Sonoma State University, CA (1991).

HUMAN-NONHUMAN ANIMAL RELATIONSHIPS, ANIMAL ETHICS, ANIMAL PROTECTION AND CONSERVATION

Publications

Marino L (2020) A Belmont Report for animals: Rights or welfare? Commentary in *Cambridge Quarterly of Healthcare Ethics*, 29(1), 67-70.

Marino L (2019) Do emotional support animals need emotional support? Essay in *Psychology Today* online.

King, BJ & Marino L (2019) Octopus minds must lead to octopus ethics. *Animal Sentience*, 263: <https://animalstudiesrepository.org/cgi/viewcontent.cgi?article=1495&context=animsent>

Marino L. (2019) Eating someone. <https://aeon.co/essays/face-it-a-farmed-animal-is-someone-not-something>

Marino, L (2019) Large brains in small tanks: Intelligence and social complexity as an ethical issue for captive dolphins and whales. In *Neuroethics and Nonhuman Animals*. Ed by A Fenton, S Johnson, A Shriver. Springer Advances in Neuroethics Series.

Marino L & Merskin D (2019) – Deepening our understanding of sheep. Response to commentaries. *Animal Sentience*, 276.

Marino L & Merskin D (2019) – Intelligence, complexity and individuality in sheep, *Animal Sentience*, 206, 1-26.

Marino, L & Lilienfeld, S (2019) Does dolphin assisted therapy have healing effects? In *Pseudoscience in Child and Adolescent Therapy*, Ed by S, Hupp. Cambridge Press.

- Marino L (2018) Turning the tide for captive whales. In *Nature's Newsletter*, July, Delaware Valley Eagle Alliance.
- Marino, L (2018) Captivity. In *Critical Terms for Animal Studies*, Ed by L. Gruen. University of Chicago.
- Marino L (2018) Marine mammal captivity: Time for a Paradigm Shift. In *The Handbook of Practical Animal Ethics*. Ed by A. Linzey and C. Linzey. Oxford Centre for Animal Ethics.
- Colvin, CM, Allen K & Marino L (2017) Thinking cows: A review of cognition, emotion, and the social lives of domestic cows. Farm Sanctuary/The Kimmela Center
https://www.farmsanctuary.org/wp-content/uploads/2017/10/TSP_COWS_WhitePaper_vF_web-v2.pdf
- Marino L & Allen K (2017) The psychology of cows. *Animal Behavior and Cognition*, 4(4): 474 – 498.
- Marino L (2017) Thinking Chickens: A literature review of cognition, emotion, and behavior in the domestic chicken. *Animal Cognition*, 20(2): 127 - 141.
- Marino L & Colvin CM (2016) Thinking chickens: A review of cognition, behavior and emotion in the domestic chicken. Farm Sanctuary/The Kimmela Center
https://www.farmsanctuary.org/wp-content/uploads/2017/01/TSP_CHICKENS_WhitePaper_vF_web.pdf
- Marino L (2016) Why animal welfarism continues to fail. Commentary on Ng on Animal Suffering in *Animal Sentience*, 074: 1 - 4.
- Marino, L (2016) Can we improve the lives of captive animals? *BBC Focus Magazine*, pp 77 - 82.
- Marino L & Colvin CM (2016) Thinking pigs: Cognition, emotion, and personality – An exploration of the cognitive complexity of *Sus domesticus*, the domestic pig. Farm Sanctuary/The Kimmela Center
http://www.farmsanctuary.org/wp-content/uploads/2016/08/TSP_PIGS_WhitePaper.pdf
- Marino L & Colvin CM (2015) Thinking Pigs: A comparative review of cognition, emotion, and personality in *Sus domesticus*. *International Journal of Comparative Psychology*, 28. uclapsych_ijcp_23859. Retrieved from: <http://escholarship.org/uc/item/8sx4s79c>
- Colvin CM & Marino L (2015) Signs of intelligent life. Pigs possess complex ethological traits similar to dogs and chimpanzees. *Natural History*, October.

- Crane JK, Satz AB, Marino L, & Willett C (2015) Beastly morality: Untangling possibilities. In *Beastly Morality-Animals as Ethical Agents*. Ed by JK Crane. Columbia University Press, NY, pp. 251 – 262.
- Marino L & Mountain M (2014) Denial of death and the relationship between humans and other animals. *Anthrozoos*, 28(1): 5 – 21.
- Marino L (2014) Cetacean Captivity. In *Ethics of Captivity*. Ed by L. Gruen. Oxford University Press, pp. 22 – 37.
- Marino L (2013) Dolphins, humans and moral inclusivity. In *Humans and Other Animals: Rethinking the Species Interface*. Ed by R. Corbey and A. Lanjouw. Cambridge University Press, pp. 95 – 105.
- Marino L (2013) Dolphins are not healers. *AEON Magazine*.
<http://www.aeonmagazine.com/nature-and-cosmos/lori-marino-dolphins-are-not-healers/>
- Marino L (2012) Construct validity of animal-assisted therapy and activities: How important is the animal in AAT? *Anthrozoos* 25: s139 – s151.
- Marino L & Frohoff T (2011) Towards a new paradigm of non-captive research on cetacean cognition. *Public Library of Science ONE* 6(9): e24121. doi:10.1371/journal.pone.
- Marino L (2011) Ethical gerrymandering in science. *Journal of Animal Ethics*, 1(2): 199 – 121.
- Marino L, Lilienfeld S, Malamud R, Nobis N, & Broglio R (2011) Strong Claims, Feeble Evidence: A Rejoinder to Falk et al. (2010). *Society and Animals*, 19: 291 – 293.
- Marino L (2011) Dolphin assisted therapy: From ancient myth to modern snake oil. *Phi Kappa Phi Forum Magazine*: 4-6.
- Marino L (November 2010) A trans-species perspective on nature. Online essay for *On the Human* (National Humanities Center), <http://onthehuman.org/2010/11/trans-species-perspective/> .
- Marino L (2010) The use of nonhuman animals in R-HET is our own moral litmus test. Commentary in *American Journal of Bioethics – Neuroscience*, 1(2): 58 – 59.
- Marino L, Lilienfeld S, Malamud R, Nobis N & Broglio R (2010) Do zoos and aquariums promote attitude change in visitors? A critical evaluation of the American Zoo and Aquarium study. *Society and Animals*, 18: 126 – 138.

- Marino L (2009) On becoming a scientist-advocate. *The Academic Exchange*. Emory University. 11(6), p. 8-9.
- Stewart KL & Marino L (2009) Dolphin-human interaction programs: Policies, problems, and practical alternatives. Policy paper for *Animals and Society Institute*.
- Marino L (2009) Another kind of scientist activism. *The Chronicle of Higher Education*. 55(28): A37.
- Marino L, Bradshaw G, & Malamud, R (2009) The captivity industry: The reality of zoos and aquariums. *Best Friends Animal Society Magazine*, March-April: 25 – 27.
- Marino L, Bradshaw G, & Malamud R (December 15, 2008) Zoos without elephants: A lesson in compassion. Los Angeles Times, Blowback Section.
- Marino L (2008) Beautiful minds—for how long? *PLoS Biology* 6(7): e189
[doi:10.1371/journal.pbio.0060189](https://doi.org/10.1371/journal.pbio.0060189) (book review)
- Marino L & Bradshaw G (2008) Elephant assisted therapy: issues and concerns. *The Born Free Foundation*, <http://www.bornfree.org.uk/>
- Marino L & Lilienfeld S (2007) Dolphin assisted therapy for autism and other developmental disorders: A dangerous fad. *Psychology in Intellectual and Developmental Disabilities (Division 33)*, *American Psychological Association*, 33(2): 2 – 3.
- Bradshaw G & Marino L (2007) Minds of their own: The exciting new field of trans-species psychology. *Best Friends Magazine*, November/December: 24 - 26.
- Marino L & Lilienfeld S (2007) Dolphin assisted therapy: More flawed data, more flawed conclusions. *Anthrozoos*. 20: 239 – 249.
- Marino L (2007) Animal consciousness. In *The Encyclopedia of human-animal relationships*. Ed by M Bekoff. Greenwood Publishing Group, pp. 1297 – 1301.
- Marino L (2007) Dolphin mythology. In *The Encyclopedia of human-animal relationships*. Ed by M Bekoff. Greenwood Publishing Group, pp. 491 – 495
- Marino L (2007) Scala natura. In *The Encyclopedia of human-animal relationships*. Ed by M Bekoff. Greenwood Publishing Group, pp. 220 – 224.
- Marino L (2006) The ape in the mirror. *Best Friends Magazine*, November/December: 24 – 25.

Marino L (2003) Has scala naturae thinking come between neuropsychology and comparative neuroscience? *International Journal of Comparative Psychology* 16: 28 - 32.

Marino L & Lilienfeld S (1998) Dolphin-assisted therapy: Flawed data, flawed conclusions. *Anthrozoos*, 11(4): 194 – 199.

Talks/Presentations/Abstracts

2020

Becoming a scholar-advocate for animals. Best Friends Animal Society, Kanab, UT.

2019

Science and sanctuary: Key aspects of legislative reform. Canadian Animal Law Conference, Dalhousie University, Halifax, Nova Scotia

Crafting the endgame for whale and dolphin captivity. Brock University, Ontario, CA.

The Whale Sanctuary Project. University of Wisconsin School of Law, Madison, WI.

From amusement parks to sanctuary: A new life for captive whales. New Neighbors of Gig Harbor, WA.

2018

Confronting the captivity of marine mammals (panel speaker). 2018 International Captive Wildlife Conference, Performing Animal Welfare Society, Burbank, California,

Examining captivity through science (panel speaker). 2018 International Captive Wildlife Conference, Performing Animal Welfare Society, Burbank, California.

Changing the future for captive whales. Harbor Wildwatch, Gig Harbor, Washington

The Whale Sanctuary Project. Superpod 6. San Juan Island, Washington.

The inconvenient truth about thinking chickens. Summer School in Animal Cognition. Univ. of Quebec at Montreal.

The next wave in our relationship with marine mammals. COW-CON, San Francisco.

How science made me an animal advocate. TEDX Youth talk at The Nueva School

Sanctuary: the future for captive dolphins and whales. Dalhousie University.

2017

Dolphins and whales: Brainiacs of the sea. Santa Barbara Channel City Club.

Captive whales and dolphins: Life beyond concrete tanks. Franklin & Marshall College, Lancaster, PA.

Presenter and co-organizer, workshop entitled Sanctuaries: A New Seascape for Captive Cetaceans, Society for Marine Mammalogy Biennial Conference, Halifax, Nova Scotia.

Panelist in discussion entitled Swimming Upstream: The Emergence of Aquatic Animal Law. The Animal Law Conference, Portland, Oregon.

The Whale Sanctuary Project, Bottlenose Dolphin Workshop, Barcelona, Spain (by skype).

The Someone Project. Farm Sanctuary Hoe Down Conference, Watkins Glenn, NY.

The Whale Sanctuary Project. Public Event at the Roundhouse Community Arts & Recreation Centre, Vancouver, British Columbia.

The Whale Sanctuary Project. Animal Welfare Program, University of British Columbia.

Participant in panel discussion on marine mammal sanctuaries. Zoos and Aquariums as Welfare Centres: Ethical Dimensions and Global Commitment. Detroit Zoological Society, Detroit, MI.

Sanctuaries as Restitution. The "I Am Not an Animal!" Conference, Atlanta, GA.

2016

The Whale Sanctuary Project. Conference on Captive Dolphins, Playa del Carmen, Mexico.

Dolphin Assisted Therapy. Conference on Captive Dolphins, Playa del Carmen, Mexico.

The Whale Sanctuary Project. The Performing Animal Welfare Society 2016 International Captive Wildlife Conference, San Andreas, CA.

Seeing seafood as animals: Three approaches to recognizing the individual. Seeing Seafood as Animals Symposium, New York University, NY, NY.

2015

Sea pen sanctuaries: Progressing towards better welfare for cetaceans. (Co-organizer with N. Rose.) Workshop at Society for Marine Mammalogy Biennial Conference.

Sanctuaries for orcas: If you build it, they will come. Compassionate Conservation Conference, Vancouver, British Columbia.

2014

Changes for marine mammals: Challenges and successes. Invited talk at The Animal Grantmakers Conference, Phoenix, AZ.

Orcas and elephants: Being big and brainy in captivity for the National Museum of Animals and Society, Burbank, CA.

David versus the corporate Goliath: Marine mammals in entertainment. Invited talk on panel about marine mammal captivity at The Performing Animal Welfare Society International Captive Wildlife Conference, Burbank, CA.

Why Blackfish works: Applying science to advocacy. Invited talk at the 2014 Classy Awards Collaborative, San Diego, CA.

The marine mammal captivity issue: Can we move forward together? Keynote address at the Southern California Marine Mammal Workshop, Newport Beach, CA.

Stormy weather: Communicating science to the media amidst controversy. Invited talk at the Southern California Marine Mammal Workshop, Newport Beach, CA.

2013

The science of the Nonhuman Rights Project. Personhood Beyond the Human. Conference sponsored by the Institute for Ethics and Emerging Technologies, Yale University, New Haven, CT.

The denial of death and our relationship with nonhuman animals. Personhood Beyond the Human. Conference sponsored by the Institute for Ethics and Emerging Technologies, Yale University, New Haven, CT. (with M. Mountain)

Dolphin and whale captivity: The science behind the films. Conference of Southwest Foundations, San Antonio, Texas.

The critical role of psychology in the conservation of nonhuman animals. Twenty-Sixth International Congress for Conservation Biology, Baltimore, MD.

Animal welfare and conservation: Two sides of the same coin? Online Live Debate for Sentience Mosaic.

Panel participant for screening and discussion of *Maximum Tolerated Dose*, film about ethics and animal research.

2012

Cetaceans in captivity: The moral challenge. Invited lecture to the Emory Pre-Veterinary Society.

Cetaceans in captivity: A moral and scientific dead end. Invited lecture for the American Cetacean Society 2012 Meeting.

Cetaceans in captivity: A moral and scientific dead end. Guest lecture at University of Redlands.

The denial of death and our relationship with the other animals. Ernest Becker Foundation Meeting, Seattle, Washington (with M. Mountain).

Dolphin brains, cognition, and culture. Invited lecture in Maymester course entitled *The Biology & Conservation of Marine Mammals*, Odum School of Ecology, University of Georgia, Athens, GA.

The scientific evidence for complex intelligence and self-awareness in cetaceans. Invited talk in symposium entitled Declaration of Rights for Cetaceans: Ethical and Policy Implications of Intelligence. American Association for the Advancement of Science Annual Meeting, Vancouver, Canada.

2006 - 2011

Humans, dolphins and moral inclusivity. Invited participant in roundtable conference entitled: Apes and humans: Rethinking the species interface. ARCUS Foundation, Desmond Tutu Center, NY, NY.

What have we learned from elephants in zoos? Invited presentation for Elephant Challenges: Care, Climate and Cost. Zoocheck Canada, Toronto, Canada.

The science of morality. Invited respondent on panel for American Academy of Religion Annual Meeting, Atlanta, GA.

On becoming a scientist-advocate. Invited panelist, "Stepping into the Frame: The Ethics of Individual Choice." Crossing the Line: The Ethics of Intervention. Emory Center for Ethics 20th Anniversary Summit.

Toward a new ethical paradigm of research on cetacean cognition. (Frohoff, T. and Marino, L.). The 12th International Conference of the American Cetacean Society, Monterey, CA.

Noninvasive research on cetacean cognition. Invited talk at Conference on Animals, Research and Alternatives, Physicians Committee for Responsible Medicine, Washington DC.

SHILAS (Species of Human Intelligence Level and Awareness of Self) and environmental law – a dolphin case study (ECM Parsons, M Gore, L Marino, C Milling, NA Rose. Compassionate Conservation: Animal Welfare in Conservation Practice, Oxford, England.

Cetacean rights: a test of our ethical consistency. Invited talk at Conference on Cetacean Rights: Fostering a moral and legal change, Helsinki, Finland.

The clash of dolphin intelligence and human ethics. Invited talk at Atlanta Science Tavern., Atlanta, GA.

The neuroanatomical basis of dolphin intelligence. Invited talk in symposium entitled Intelligence of Dolphins: Ethical and Policy Implications. American Association for the Advancement of Science Annual Meeting, San Diego, CA.

Dolphin assisted therapy: A dangerous fad. Invited talk at for Dept of Philosophy at Wofford College, Spartanburg, SC.

On becoming a scientist-advocate. Invited talk for Faculty Creativity Over the Life Cycle Event, Emory University, Atlanta, GA.

Dolphin assisted therapy: A dangerous fad. Invited talk for Comparative Medicine Seminar Series. Emory University, Atlanta, GA.

Animal behavior and bioethics: Fertile ground for classroom discussion (with J. Balcombe). National Association for Biology Teachers Conference, Memphis, TN.

Perverting the ark: The messaging and motives of zoos and aquaria. (L Marino, R Malamud, N Nobis, R Broglio). Human Animal Bond: Theory, Research and Practice. International Society for Anthrozoology Conference, Toronto, Canada.

Thinking about human intelligence as an evolved biological trait. National Association of Biology Teachers' Annual Convention, Memphis, TN.

Dolphin assisted therapy: A dangerous fad. Invited Plenary talk at International Compassionate Living Festival, Animals & Society Institute, Raleigh, NC.

Trans-species models of neurobiology. Invited talk at Conference entitled Reframing the Pitbull-Human Issue: A workshop on the science, myth, and cultural change. Jacksonville, OR.

Unitary models of brain and behavior. Invited talk at Trans-Species Psychology Workshop: Theory and Practice. Jacksonville, OR.

Ecotherapy and dolphin assisted therapy. Invited talk at Trans-Species Psychology Workshop: Theory and Practice. Jacksonville, OR.

On the sentience and suffering of dolphins. The Whale Memorial Dance. Invited talk at Indiana University, IN.

What's driving dolphin drive hunts? Invited talk for Speak Out for Species, University of Georgia, Athens, GA.

Dolphin therapy? Invited lecture in Maymester course entitled *The Biology & Conservation of Marine Mammals*, Odum School of Ecology, University of Georgia, Athens, GA.

Why dolphin-assisted therapy isn't therapy. Invited talk for ACCOBAMS Third Meeting of Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area (ACCOBAMS), Croatia.

Conceptual foundations of (teaching) animal ethics. Invited talk for Teaching Ethics Panel, Center for Ethics, Emory University.

Dolphin therapy? Invited lecture in Maymester course entitled *The Biology & Conservation of Marine Mammals*, Odum School of Ecology, University of Georgia, Athens, GA.

A trans-species psychology of primates, cetaceans, and elephants Invited talk at Best Friends Animal Society, Kanab, UT.

Dolphins and whales in captivity. Invited talk at Best Friends Animal Society, Humane Education Dept., Kanab, UT.

Animal Intelligence and self-awareness. Invited talk at Best Friends Animal Society, Kanab, UT.

TEACHING AND COURSE DEVELOPMENT

Humane Society University

Animal Behavior, Animal Minds and Animal Protection – Summer 2013, Fall 2013, Summer 2014, Spring 2015

Evolution: Biological Continuity and Adaptation – graduate course developed and taught Winter 2014

Emory University

Animal Ethics (Spring 2012, Fall 2012) co-taught with Dr. Jonathan Crane

Interdisciplinary Foundations: The Nature of Evidence and Explanation (Fall 2011, Fall 2012)

Human Relationships with Other Animals (Fall 2011, Spring 2013, Fall 2013)

Introduction to Psychology (Spring 2011)

Animal Minds (Fall 2010, Spring 2011)

Animal Welfare (NBB elective taught several semesters)

Brain Imaging (taught every year from 1998 - 2010)

Self-awareness in Animals (Spring 2010)

Neuroscience for Animal Lovers - pre-college course (Summer 2009)

Animal Intelligence, Cognition and Culture - Emory QUEST course for adults (Feb-Mar 2009)

Animal Intelligence - Special topics seminar (Spring 2009)

Perspectives in Neuroscience and Behavior

Imaging Mammal Brains (freshman seminar)

Behavioral Neuroscience

Mammalian Intelligence

Cognitive Ethology

Comparative Brain Evolution

Dolphin-Human Interaction (freshman seminar)

The Evolution of Primate Intelligence

The Evolution of Social Behavior

Child Development

OTHER PROFESSIONAL AFFILIATIONS AND SERVICE ACTIVITIES

Creative Affiliate, *The Safina Center* (2016 - present)

Senior Fellow, *Sentience Media* (2020 – present)

Fellow, *Oxford Centre for Animal Ethics* (2020 – present)

Board of Directors, *Institute for Compassionate Conservation* (2017 – present)

Lead Scientist, *The Someone Project* with Farm Sanctuary (2013 - 2020)

Science Director, *The Nonhuman Rights Project* (2011-2013)

Advisory Board, *Dolphin Biology and Conservation* (present)

Advisory Board, *New Horizons Message Initiative* (present)

Project Personnel, *Evolution of Dolphins and Whales*,
(http://www.nyit.edu/nycom/research/evolution_of_dolphins_and_whales_homepage/)
(present)

Consultant and reviewer of proposals on ocean protection/conservation, *Savannah Ocean Exchange* (2011 - 2012)

Oral and written testimony before The House Committee on Natural Resources Subcommittee on Insular Affairs, Oceans and Wildlife regarding educational aspects of public display of marine mammals (2010)

Co-founding signatory, *Declaration of Rights for Cetaceans*, (a project of The Whale and Dolphin Conservation Society) (2010)

Co-Organizer (with Ani Satz, Emory School of Law) of Brown Bag luncheon: Finding a common path: Scholarship-based animal advocacy. Sponsored by The Center for Faculty Development and Excellence. (2009)

Chair, Undergraduate Research Committee, *Neuroscience and Behavioral Biology Program*, Emory University (2009 – 2010)

Co-organizer, Symposium entitled *Getting Smarter About Intelligence. AbSciCon 2008: Astrobiology Science Conference*, Santa Clara, CA (2008)

Member at large, Operations Committee, *International Society for Comparative Psychology* (ended 2008)

Executive Committee, *Neuroscience and Behavioral Biology Program*, Emory University (2006 – 2008)

Co-organizer of working group on *Socio-Cognitive Complexity*, Santa Fe Institute (2006)

Co-chair, Working Group on *Animal Behavior, Cognition, and Communication: The Role of Networks and Information*, Santa Fe Institute (2005)

Co-organizer, Symposium on *The Evolution of Neurobiological Specializations in Mammals*, American Association of Anatomists Meeting at Experimental Biology (FASEB) (2005)

Program Organizing Committee, *Biennial Meeting of the NASA Astrobiology Institute*, University of Colorado, Boulder, Co. (2005)

Co-organizer, Symposium on *Evolution of Vertebrate Brain and Behavior*, International Society for Comparative Psychology, Oviedo, Spain (2004)

Scientific Organizing Committee, *International Society for Comparative Psychology*, Oviedo, Spain (2004)

Scientific Organizing Committee, *Bioastronomy 2004: Habitable Worlds*, Iceland. (2004)

Co-organizer, Session on the *Evolution of Intelligence*. *Astrobiology Science Conference*, NASA Ames Research Center, Moffett Field, CA (2004)

Member, *NASA Astrobiology Institute Lead Team*, SETI Institute (2003 - 2004)

Scientific Organizing Committee, *Bioastronomy 2002: International Astronomical Union Symposium 213*, Hamilton Island, Australia (2002)

Strategic Planning Committee for the *SETI Institute Carl Sagan Center for the Study of Life In The Universe*, Mountain View, CA (2000 – 2004)

Co-organizer, Animal Behavior Society-funded *Symposium on Comparisons of Primates and Cetaceans*, Annual Meeting of the Animal Behavior Society, Atlanta, GA. (2000)

Co-organizer, Symposium on *The Cetacean Nervous System*, Biennial Conference on the Biology of Marine Mammals, Maui, HI (1999)

MEDIA

Magazine Interviews

Subject of National Geographic Ocean Views interview with Carl Safina and Erica Cirino entitled: “Animal Neuroscientist Discusses her Career and the Case for Keeping Cetaceans out of Captivity” (2017)

Subject of *National Geographic Innovator Project* article by Virginia Morell entitled: “Lori Marino: Leader of a Revolution in How we Perceive Animals” (2014)

Subject of *Discover* magazine article by Erik Vance entitled “It’s Complicated: The Lives of Dolphins and Scientists” (2011)

Subject of *Science* magazine article by David Grimm entitled “Are Dolphins Too Smart for Captivity?” (2011)

Television News Interviews (non-exhaustive list)

Top Canadian news organizations (CBC, Globe and Mail, CTV, Vancouver Sun, many others) (regular appearances to discuss the Whale Sanctuary Project and dolphin and whale captivity issues)

CNN in Atlanta (numerous appearances to discuss dolphin and whale captivity, behavior and protection, AC360, Jane Velez Mitchell, etc.)

Atlanta Fox Five News (numerous appearances to discuss dolphin and whale captivity, behavior and protection)

Documentary Films, Commercial Motion Pictures, and Television Program Appearances

Corky documentary (upcoming feature film) - 2020

Long Gone Wild (Vision Films) - 2019

Unlocking the Cage (Pennebaker Hegedus Films) - 2016

By All Rights (Earth Views Production) – 2016

Vancouver Aquarium Uncovered (Evotion Films Inc) - 2015

BBC TWO Horizon episode on dolphin and whale brains – 2016

Inside the Animal Mind (BBC) - 2014

The Ghosts in Our Machine (LizMars Productions) 2013

Blackfish (<http://blackfishmovie.com/>) 2013

A Fall from Freedom (Earth Views Productions) 2011

Hero Animals: The Dolphin that Saved the Surfer (Big Wave Productions) 2009

Saved by Dolphins (Big Wave Productions) 2008

Humanimal: Animal Minds (France 2 Productions) 2007

What We Still Don’t Know (Darlow Smithson Productions) 2004

Radio Show Interviews (non-exhaustive list)

Second Opinion Radio (WRFG 89.3 FM Atlanta) (regular appearances)

In Tune to Nature (regular appearances)

Animals Today (talk radio) (regular appearances)

Our Hen House (talk radio) (regular appearances)
The Recovery Zone (talk radio)
Knowledge@Wharton (talk radio – several appearances)
Minnesota Public Radio News
Animal News Hour (talk radio)
State of the Oceans with Captain Paul Watson and the Barbi Twins (LA Talk Radio)
Formula One: The Drake Equation (Are We Alone? SETI Institute Science radio)
The Current (CBC radio and podcast)
Ocean Mind (CBC radio and podcast)
Women on the Move (Atlanta AM1160)
Intelligence in Cetaceans (Science in Your Life Emory University Radio show)
You Animal (Are We Alone? SETI Institute Science Radio)

Podcast and Video Interviews (non-exhaustive list)

Now You Know podcast
The Politics of Species (for the ARCUS Foundation)
<https://youtu.be/xOsW7P98SXk>
The Ghosts in Our Machine
<http://www.theghostsinourmachine.com/featured-animal-ambassador/>
Animal Suicide (HD WorldNet Report)
BigThink/Edge (online podcast interview)
In Opposition to Dolphin Captivity (Online interview on Animal Planet)
Sounds of the Sea (Anthro Media)
Dolphin Intelligence – Confirming the Mind in the Water (The Whales online Podcast),
The Magnificent Minds of Dolphins (SupremeMaster TV)
The Truth About Dolphin Assisted Therapy (The Dolphin Pod podcast, Dolphin Communication Project)

Other

How Smart Are Dolphins? TED ED Lesson
<https://www.youtube.com/watch?v=05PpTqtGhGU>

EDITORIAL AND PEER-REVIEW ACTIVITIES

Editorial Board (2014 - present) *Animal Sentience*

Associate Editor (marine mammals) (2014 - 2017) *International Journal of Comparative Psychology*

Lead Guest Editor (2011-2012) Special Issue on Protecting Wild Dolphins and Whales: Current Crises, Strategies, and Future Projections, *Journal of Marine Biology*.

Reviewer (2010, 2011) The role of human-animal interaction in child health and development. National Institute of Child Health and Human Development (NICHD) and National Institute of Nursing Research (NINR), *National Institutes of Health*

Reviewer (2001) *National Science Foundation*

Editorial Board (ended 2012) *Anthrozoos*

Board of Editors (ended 2011) *Society and Animals*

Board of Reviewers (2004 - 2009) *The Anatomical Record*

Editorial Board (2003 - 2008) *International Journal of Comparative Psychology*

Guest Co-editor (2004) Special issue on The Evolution of Neurobiological Specializations in Mammals for *The Anatomical Record*

Guest Co-editor (2004) Special issue on Evolution of the Vertebrate Brain and Behavior for *International Journal of Comparative Psychology*

Ad Hoc Reviewing

Acta Astronautica

American Journal of Bioethics

Animal Cognition

Anthrozoos

Aquatic Mammals

Behaviour

Behaviour Processes

Behavioral and Brain Sciences

Biological Reviews

Brain, Behavior and Evolution

Canadian Journal of Zoology

Environmental Communication

Evolutionary Anthropology

Journal of Anatomy

Journal of Applied Animal Welfare Science

Journal of Comparative Neurology

Journal of Comparative Psychology

Journal of Neuroscience Methods

Journal of Vertebrate Paleontology

Kennedy Institute of Ethics Journal

Marine Mammal Science

Nature

Proceedings of the National Academy of Sciences

Proceedings of The Royal Society: Biological Science

Society and Animals

PROFESSIONAL REFERENCES

Available upon request