

**Bhart-Anjan Singh Bhullar**  
Curriculum Vitae  
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**Mailing address:**

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**Positions**

- Assistant Professor of Geology and Geophysics, Yale University, beginning summer 2015.
- Assistant Curator of Vertebrate Paleontology, Yale Peabody Museum of Natural History, beginning summer 2015.
- Research Scientist and Curatorial Affiliate, Yale University, beginning spring 2014.

**Education**

- Ph.D. in Organismic and Evolutionary Biology at Harvard University, successful defense of dissertation on April 16, 2014, degree award expected May 29, 2014; primary advisor Prof. Arhat Abzhanov.
- M.S. in Geological Sciences (emphasis on paleontology) at The University of Texas at Austin received December 2008; advisors Prof. Christopher Bell, Prof. Timothy Rowe.
- Completed full cadaver-based medical gross anatomy class (eight weeks, five days per week) as summer student at New York University Medical Center in summer 2008. Finished first in the class for several units, including head and neck.
- B.S. in Biology, magna cum laude, Phi Beta Kappa; Yale University, May 2005; advisor Prof. Jacques Gauthier.

**Research Interests**

- Major morphological transitions and their developmental mechanisms. Evolutionary and developmental origins of the major vertebrate radiations, approached using paleontology, comparative morphology and embryology, and experimental molecular development.
- Resolving molecular and morphological phylogenetic signals using novel morphological, developmental, and genetic data; amniote systematics, morphology, and paleontology.
- Concepts of homology.

**Current Research (see also Manuscripts in Preparation below)**

- The evolution and development of the archosaurian head and body; the origin of the bird skull and the crocodile body.
- Molecular mechanisms of morphological transitions at the origins of major amniote clades.

- Concentrated homoplasy, the zone of variability, and uniting macroevolution and microevolution in deep time; underlying mechanisms of character evolution. With Gabe Bever, NYCOM, and Günter Wagner, Yale.
- Evolutionary and developmental origin of the mammalian braincase and orbital wall. With Zhe-Xi Luo, University of Chicago, and Fuzz Crompton, MCZ.

### Publications

1. Scanferla CA, **Bhullar B-AS**. 2014. Postnatal development of the skull of *Dinilysia patagonica* (Squamata-stem Serpentes). *The Anatomical Record* 297(3): 560-573.
2. Weeks O, **Bhullar B-AS**, Abzhanov A. 2013. Molecular characterization of dental development in a toothed archosaur, the American alligator *Alligator mississippiensis*. *Evolution and Development* 15(6): 393-405.
3. Lyson TR, **Bhullar B-AS**, Bever GS, Joyce WG, de Queiroz K, Abzhanov A, Gauthier JA. 2013. Homology of the enigmatic nuchal reveals the novel reorganization of the shoulder girdle in the evolution of the turtle shell. *Evolution and Development* 15(5): 317-325.
4. **Bhullar B-AS**, Marugán-Lobón J, Racimo F, Bever GS, Norell MA, Rowe TB, Abzhanov A. 2012. Birds have paedomorphic dinosaur skulls. *Nature* 487: 223-226.
5. Longrich NR, **Bhullar B-AS**, Gauthier JA. 2012. A transitional snake from the Late Cretaceous of North America. *Nature* 488: 205-208.
6. Longrich NR, **Bhullar B-AS**, Gauthier JA. 2012. Mass extinction of lizards and snakes at the Cretaceous-Paleogene boundary. *Proceedings of the National Academy of Sciences, USA* 109(52): 21396-21401.
7. **Bhullar B-AS**. 2012. A phylogenetic approach to ontogeny and heterochrony in the fossil record: Cranial evolution and development in anguimorphan lizards (Reptilia: Squamata). *Journal of Experimental Zoology, Part B: Molecular and Developmental Evolution* 318b: 521-530.
8. Kirk EC, Daghighi P, Macrini TE, **Bhullar B-AS**, Rowe TB. In press. Cranial anatomy of the Duchesnean primate *Rooneyia viejaensis*: New insights from high-resolution computed tomography. *Journal of Human Evolution*.
9. Kennedy AM, **Bhullar B-AS**, Lewis PJ. In press. Preliminary analysis of the fossil herpetofauna from the Koanaka Hills site, Ngamiland, Northwestern Botswana. *Palaeontologia Africana*.
10. Ortiz D, Lewis PJ, Kennedy AM, **Bhullar B-AS**, Hancox J. In press. Preliminary analysis of Dipnoi (lungfish) fossils from Driefontein, South Africa. *Palaeontologia Africana*.
11. **Bhullar B-AS**. 2011. The power and utility of morphological characters in systematics: A fully resolved phylogeny of *Xenosaurus* and its fossil relatives (Squamata: Anguimorpha). *Bulletin of the Museum of Comparative Zoology* 160(3): 65-181.
12. **Bhullar B-AS**. 2010. Cranial osteology of *Exostinus serratus*, fossil sister taxon to the enigmatic clade *Xenosaurus*. *Zoological Journal of the Linnean Society* 159: 921-953.
13. Lyson, TR, Bever BS, **Bhullar B-AS**, Joyce WG, Gauthier JA. 2010. Transitional fossils and the origin of turtles. *Biology Letters* 6: 830-833.
14. **Bhullar B-AS**, Bever GS. 2009. An archosaur-like laterosphenoid in early turtles (Reptilia: Pantestudines). *Breviora of the Museum of Comparative Zoology* 518: 1-11.
15. **Bhullar B-AS**. 2009. A reevaluation of the unusual abdominal musculature of squamate reptiles (Reptilia: Squamata). *The Anatomical Record* 292(8): 1154-1161.
16. **Bhullar B-AS**, Bell CJ. 2008. Osteoderms of the California legless lizard *Anniella* (Squamata: Anguillidae) and their relevance for considerations of miniaturization. *Copeia* 2008(4): 785-793.

17. **Bhullar B-AS**, Smith KT. 2008. Helodermatid lizard from the Miocene of Florida, the evolution of the dentary in Helodermatidae, and comments on dentary morphology in Varanoidea. *Journal of Herpetology* 42(2): 286-302.
18. Smith KT, **Bhullar B-AS**, Holroyd PA. 2008. Earliest record of the *Varanus* stem-clade (Squamata: Varanidae) from the Early Oligocene of Egypt. *Journal of Vertebrate Paleontology* 28(3): 909-913.

#### Submitted Manuscripts

1. **Bhullar B-AS**, Abzhanov A. In submission. A simple molecular mechanism for the origin of the bird beak.

#### Manuscripts in Preparation

1. **Bhullar B-AS**, Oliveira F, Abzhanov A. In preparation. The evolution and developmental mechanisms of the maxilla/premaxilla interplay in the bird face.
2. **Bhullar B-AS**, Scanferla CA, Bever GS, Smith KT, Bell CJ, Rowe TB. In preparation. A primitive alethinophidian from the Eocene of Texas and the origins of the macrostomatan radiation.
3. **Bhullar B-AS**, Bever GS. In preparation. Homology and the ‘whole-organ fallacy.’

#### Conference Abstracts

1. **Bhullar B-AS**, Marugán-Lobón J, Racimo F, Bever GS, Norell MA, Rowe TB, Abzhanov A. 2013. Frontiers in the evolution and development of the reptilian skull. International Congress of Vertebrate Morphology 2013.
2. **Bhullar B-AS**, Marugán-Lobón J, Racimo F, Bever GS, Norell MA, Rowe TB, Abzhanov A. 2013. The evolution and development of the archosaurian head and the origin of the bird skull. Society of Integrative and Comparative Biology annual meeting 2013.
3. **Bhullar B-AS**, Bever GS, Merck JW, Lyson TR, Gauthier JA. 2011. Uniting microevolution and macroevolution in deep time: The zone of variability in Archosauromorpha. Society of Vertebrate Paleontology annual meeting 2011.
4. Roach B, Fox M, **Bhullar B-AS**. 2011. The preparation of a complete sphenosuchian skeleton, YPM 57103: A case study. Society of Vertebrate Paleontology annual meeting 2011.
5. Lyson TR, **Bhullar B-AS**, Bever GS, Joyce WG, Gauthier JA. 2010. Vertical split of the turtle shoulder girdle into the upper and lower shell. Presented at the Ninth Meeting of the International Congress of Vertebrate Morphology, Punta del Este, Uruguay.
6. Lyson T, **Bhullar B-A**, Bever G, Joyce W, Gauthier J. 2010. Vertical split of the turtle shoulder girdle pushes the limits of muscular scaffold homology. *Journal of Vertebrate Paleontology* October 2010: 126A.
7. Kirk E, Daghighi P, Macrini T, **Bhullar B-A**, Rowe T. 2010. Virtual endocast of *Rooneyia viejaensis* (Mammalia, Primates). *Journal of Vertebrate Paleontology* October 2010: 116A.
8. Ortiz D, Lewis P, Kennedy A, **Bhullar B-A**, Hancox J. 2010. Preliminary analysis of Dipnoi (Osteichthyes: Sarcopterygii) fossils from Driefontein, South Africa. *Journal of Vertebrate Paleontology* October 2010: 142A.
9. **Bhullar B-AS**, Pauly GB, Scanferla A, Bever G, Smith K. 2009. The first fossil sunbeam snake and the antiquity of modern snake clades. *Journal of Vertebrate Paleontology* 29: 63A.
10. **Bhullar B-AS**, Scanferla A, Bever G, Smith K. 2008. A nearly complete macrostomatan snake from the Eocene of Texas. *Journal of Vertebrate Paleontology* 28: 52A.

11. Kennedy AM, **Bhullar B-AS**. 2008. An apomorphy-based identification of a fossil herpetofauna from Botswana. Texas Academy of Science conference 2008.
12. Scanferla A, **Bhullar B-AS**. 2008. Postnatal developmental aspects in a Cretaceous snake, *Dinilysia patagonica*. *Proceedings of the Third Latin-American Congress of Vertebrate Paleontology*.
13. **Bhullar B-AS**. 2007. Developmental and evolutionary insights from the anatomy of *Anolis carolinensis* and other Squamata: membranes and muscles, tracing the neural crest, and the presence of the "rectus lateralis" in Iguania. Presented at the Eighth Meeting of the International Congress of Vertebrate Morphology, Paris, France. *Journal of Morphology* 268: 1049.
14. **Bhullar B-AS**. 2007. The enigmatic fossils *Exostinus* and *Restes*: resolving the stem and the crown of *Xenosaurus*, the knob-scaled lizards. *Journal of Vertebrate Paleontology* 27: 48A.
15. Kennedy AM, **Bhullar B-AS**. 2007. Preliminary analysis of the fossil herpetofauna from the Koanaka Hills site, Ngamiland, Northwestern Botswana. *Journal of Vertebrate Paleontology* 27: 98A-99A.
16. Kennedy AM, **Bhullar B-AS**. 2007. Preliminary analysis of the fossil herpetofauna from the Koanaka Hills. Texas Biological Anthropologist Consortium conference 2007.
17. **Bhullar B-AS**. 2006. Postnatal ontogenetic changes in the cranium of *Varanus exanthematicus* with comparisons to other varanoids and applications to the fossil record. *Journal of Vertebrate Paleontology* 26: 42A.
18. **Bhullar B-AS**. 2003. "Demands of operating in complex three-dimensional environments: A suggestion for comparative field studies of primates and cetaceans with focus on echolocation, other vocalizations, and social behavior." New England Biological Anthropology Symposium 2003.

### **Grants and Awards Received**

#### **Graduate: Major grants, awards, and fellowships**

- Nominee (results pending): Blavatnik Awards for Young Scientists, National Faculty Competition, 2014.
- World Economic Forum Young Scientist, Annual Meeting of the New Champions, September 2013.
- National Science Foundation Doctoral Dissertation Improvement Grant for "Dissertation Research: The Deep Evolution and Development of the Archosaurian Head and the Origin of the Face of Birds" (DEB 1110564); dissertation research in the lab of Professor Arkhat Abzhanov. \$13,311. May 2011 to May 2013.
- Harvard University Derek Bok Award for Excellence in Graduate Student Teaching of Undergraduates. First student in the biological sciences to receive the award, one of five across the university; \$1,000 cash prize. Spring 2010.
- Harvard University Certificate of Distinction in Teaching for Vertebrate Evolution and Development. Fall 2011.
- Harvard University Certificate of Distinction in Teaching for Evolutionary Human Anatomy and Physiology. Fall 2009.
- James Mills Peirce Fellowship, Harvard University Graduate School of Arts and Sciences, Fall 2008 – Spring 2011. Merit fellowship awarded to top Ph.D. applicants providing total of \$18,000 of support above departmental stipend and other fellowships.
- National Science Foundation Graduate Research Fellowship; awarded 2005, tenure begun Fall 2007 to end Spring 2010.
- Donald D. Harrington Fellowship, University of Texas at Austin; full tuition and three years of funding with \$34,000 stipend + \$2,000 research allowance, beginning Fall 2005.

- Bruton Continuing Fellowship (supplementary to partial Harrington Fellowship and NSF Graduate Research Fellowship), The University of Texas at Austin. Fall 2007.
- NSERC Canada Graduate Scholarship; 2005 (declined in order to accept NSF, Harrington).

**Graduate: Awards and small grants**

- American Ornithologists' Union Research Award: \$1,542. Spring 2011.
- American Museum of Natural History Frank M. Chapman Memorial Fund Grant: \$1,392. Spring 2011.
- Harvard Museum of Comparative Zoology Ernst Mayr Travel Grant in Animal Systematics: \$1,395 for travel to South Africa. Spring 2011.
- Best student poster award, Paleontological Society of Southern Africa meeting, Summer 2010.
- Promotion to full membership in Sigma Xi granted May 2009.
- Texas Biological Anthropology Consortium student presentation award for Kennedy and Bhullar (2008) listed above.
- American Museum of Natural History Theodore Roosevelt Memorial Grant; \$2,300 for CT scanning and travel. Spring 2007.
- Society of Systematic Biologists Award for Graduate Student Research; \$1,400 for CT scanning and travel. Spring 2007.
- Analytical fees, Jackson School of Geosciences at The University of Texas at Austin; \$740 for CT scanning. Spring 2007.
- American Society of Ichthyologists and Herpetologists Gaige Fund Grant Award; \$500 for CT scanning and travel. Spring 2007.
- Off-campus research support, Jackson School of Geosciences at The University of Texas at Austin; \$365 for trip to University of Florida to examine exceptionally preserved Paleocene lizard fossils. Spring 2007.
- Analytical fees, Jackson School of Geosciences at The University of Texas at Austin; \$1,000 for CT scanning of specimens. Summer 2006.
- Sigma Xi Grant-in-Aid of Research; \$500 for CT scanning of specimens. Spring 2006.

**Undergraduate: Awards, grants, and fellowships**

- Phi Beta Kappa membership awarded Spring 2005.
- Richter Summer Fellowship, Yale University; \$1,000 for fieldwork and academic travel during summer of 2004.
- Environmental Studies Fellowship, Yale University; \$400 for fieldwork during summer of 2004.
- Howard Hughes Medical Institute/Yale Future Scientists Program summer research funding; \$3,500 for summer of 2004.
- Sheffield Scientific Merit Award and Scholarship, Yale University; 2003-2004 school year.
- Environmental Studies Fellowship, Yale University; \$3,000 for summer of 2003.
- Yale College Dean's Research Fellowship, Yale University; \$400 for summer of 2003.
- Kidd Award, Yale University; \$1,000 for one-week trip to Mexico City, Mexico during spring of 2003.
- Perspectives on Science program (Yale University) summer research funding; \$3,200 for summer of 2002.

**Pre-college (selected)**

- National Merit Scholarship
- Rensselaer Award in Math and Science (accompanying \$15,000/year scholarship offer to Rensselaer Polytechnic Institute, New York declined)
- National Council of Teachers of English Achievement Award in Writing

### Reviewer for

- *Acta Palaeontologia Polonica*
- *Bulletin of the American Museum of Natural History*
- *Bulletin of the Peabody Museum of Natural History*
- *Herpetologica*
- *Journal of Anatomy*
- *Journal of Herpetology*
- *Journal of Systematic Palaeontology*
- *Nature*
- *Nature Communications*
- *Paleobiology*
- *PeerJ*
- *Proceedings of the National Academy of Sciences, USA*
- *Proceedings of the Royal Society B: Biological Sciences*
- *Zoology*

### Teaching Experience

- Fall 2011: Developed and taught intensive laboratory for Harvard College Organismic and Evolutionary Biology (OEB) 150, Vertebrate Evolution and Development (new course). Received Certificate of Distinction in Teaching.
- Spring 2010: Periodically assisted in teaching lab for OEB 167, Herpetology.
- Spring, multiple years: Assisted in preparing lectures and gave short guest lecture for OEB 190, Ornithology.
- Fall 2009: Teaching fellow for Harvard College Life Sciences (LS) 2: Human Evolutionary Anatomy and Physiology. Ran lab section, including anatomy lectures, dissection, and physiological experiments. Received Certificate of Distinction in teaching and Derek Bok Award for Excellence in Graduate Student Teaching of Undergraduates.
- Fall 2007: Helped organize lecture and lab for The University of Texas at Austin Geology (GEO) 391: Morphology and Systematics of Squamate Reptiles.

### Mentoring Experience

- Students mentored: Alicia Kennedy (undergraduate at Sam Houston State University, now Ph.D. at UT Austin); Heather Ahrens (master's student at UT Austin, now Ph.D. at Johns Hopkins); Fernando Racimo (undergraduate at Harvard); Olivia Weeks (undergraduate at Harvard); Filipe Oliveria (master's student at Harvard); Atalay Tok (master's student at Harvard).
- Fall 2010-present: Wrote letters of recommendation for small fellowships, professional (medical) school, and graduate school for several undergraduates.

### Invited Talks

1. **Bhullar B-AS**. 2014. Integrated evolution and development of the avian brain and skull. NESCENT Catalysis Meeting: The Avian Brain, May 2014.
2. **Bhullar B-AS**. 2014. The ascendance of birds and the trappings of a kingly crown. Royal Tyrrell Museum Speaker Series, Drumheller, Alberta. March 2014.

3. **Bhullar B-AS.** 2014. Of dragons and Darwin: teaching evolution with dinosaurs and deep time. Harvard Museum of Natural History teacher training program. April 2014.
4. **Bhullar B-AS.** 2012. Stories and the tree of life: Teaching evolution from a deep-time perspective. Harvard Museum of Natural History teacher training program. February 2012.
5. **Bhullar B-AS.** 2011. The deep evolution and development of the bird face. Departmental seminar, Department of Biological Sciences, Sam Houston State University. February 2011.
6. **Bhullar B-AS.** 2010. New discoveries from removing rock and dissecting fossils digitally with CT scanning technology. 20-minute talk as invited junior paleontology representative at Rank Prize Funds Symposium on High-Resolution X-Ray Imaging at the Wordsworth Hotel, Grasmere, UK, October 2010.
7. **Bhullar B-AS.** 2007. The relationships and deep history of the dragon-form lizards: a story, told by comparative anatomy, across six continents and two hundred million years. Amarillo symposium for Donald D. Harrington Student and Faculty Fellows, 11 April 2007, Amarillo, Texas. Attended by President William Powers, Jr. and other officials of The University of Texas at Austin.

#### **Other Presentations**

1. **Bhullar B-AS.** 2010. "The deep history of the archosaurian face." Interdepartmental Evolution and Development Group meeting, Harvard University, November 2010.
2. **Bhullar B-AS.** 2009. "The archosaur face and prospects for craniofacial evo/devo on *Alligator mississippiensis*." Interdepartmental Evolution and Development Group meeting, Harvard University, July 2009.
3. **Bhullar B-AS.** 2008. "Homology: Plurality or unity?" Led two-hour discussion on homology for seminar group organized by Professor Karel Liem.
4. **Bhullar B-AS.** 2008. "The anatomy and phylogeny of Xenosauridae, the knob-scaled lizards." Department of Geological Sciences, Jackson School of Geosciences, The University of Texas at Austin Technical Sessions presentation, 5 April 2008.

#### **Field Experience**

- Fruita, Colorado and Dinosaur National Monument, Utah, July and August 2011-2014 and ongoing. Quarrying of Late Jurassic microvertebrate sites. Co-leader with Gabe S. Bever.
- Driefontein, Free State, South Africa, 8 August 2010 – 19 August 2010. Paleontological prospecting and excavation at Early Triassic terrestrial microvertebrate site and surrounding area. Co-leader with Patrick J. Lewis.
- New Mexico, Arizona, California, Oregon, Nevada, 13 May 2007 – 18 June 2007. Collection of specimens for osteological studies of phylogeny and intraspecific variation in North American Squamata and Amphibia. Over 330 specimens collected. With Christopher J. Bell and Krister Smith.
- Escalante National Monument, Utah, 12 May 2004 – 29 May 2004. Paleontological prospecting and excavation in Chinle Formation Triassic sediments in Circle Cliffs and Fry Canyon areas. With Yale Peabody Expedition 2004.
- Kansas and Missouri, Fall 1999 – Summer 2001. Biodiversity data collection on reptiles, amphibians, and fishes, water quality testing independently and in conjunction with the Kansas Herpetological Society. With Eric Kessler, Faculty of Science, Blue Valley North High School, Overland Park, Kansas.

#### **Undergraduate Research Experience**

- Fall 2003, Spring 2004, Summer 2004, Fall 2004, Spring 2005, Summer 2005: Description of the fossil lizard *Aiolosaurus oriens* from the Late Cretaceous of Mongolia and the phylogeny of Anguimorpha.
- Spring 2004: Research on the primary works of pre-Victorian and Victorian comparative anatomists, including Cuvier, Lamarck, Agassiz, Darwin, and especially Huxley and Owen, in particular concerning their ideas as far as the “progression” of animal life and the place of Reptilia within the natural order. With Scott Boorman, Yale University.
- Summer 2003: The functional evolution of HoxA-11, a transcription factor pivotal to tetrapod limb evolution; nucleic acid biochemistry and immunohistochemistry. With Günter Wagner, Yale University.
- Spring 2003: Phylogeny and anatomy of Squamata, specifically limb osteology and the phylogeny of Anguimorpha. With Jacques Gauthier, Yale University.
- Summer 2002, Fall 2002, Spring 2003: Theoretical aspects of the demands of complex three-dimensional environments on mobile organisms. With Scott Boorman, Yale University.
- Summer 2002: Purification of Rho-family GTPases for use in neuronal growth cone dynamics assays. With Paul Forscher, Yale University.

### **Public and Professional Service**

- July 2013: Lecture and tour on paleontology for Harvard Museum of Natural History Ancient Life Program.
- February 2013: Lecture to middle and high school teachers as part of Harvard Museum of Natural History adult and teacher education program on mammal origins and evolution.
- August 2012: Lecture and tour on paleontology for Harvard Museum of Natural History Ancient Life Program.
- March 2012-2014: Ran "meet a paleontologist" tables at annual Harvard Museum of Natural History Earth Rocks program.
- February 2012: Lecture to middle and high school teachers on teaching evolution from a paleontological/deep time perspective.
- August 2011: Lecture and tour on paleontology for Harvard Museum of Natural History Ancient Life Program.
- March 2011: Recorded segments in New York City about teaching philosophy and strategy to be incorporated into Epigeum E-Learning Course "University and College Teaching" based out of Imperial College, London.
- January 2011: Co-led Harvard-wide panel on teaching excellence for Harvard University Derek Bok Center for Teaching and Learning.
- October 2010: Led tours of MCZ Vertebrate Paleontology collection for undergraduate research organization.
- September 2009: Platform session moderator for Society of Vertebrate Paleontology 69<sup>th</sup> Annual Meeting.
- Fall 2005: Presented snake anatomy and phylogeny to the public using skeletal material and illustrations as part of University of Texas “Hot Science, Cool Talks” public outreach lecture “The Striking Behavior of Rattlesnakes” by Dr. Travis LaDuc.

### **Press Coverage**

- For Bhullar et al. (2012) in *Nature* on bird skull evolution: *The New York Times*, *The LA Times*, *Nature* Podcast (recorded interview), CBC Canada (recorded interview), *Scientific American*, *Science News*, *American Scientist*, *New Scientist*, *Discovery News*, *Science et Vie*



(France), various international newspapers, *The Harvard Gazette*, Smithsonian blog, American Museum of Natural History blog, Why Evolution is True blog, numerous other blogs and online news sources.

- For Longrich et al. (2012) in *Nature* on snake origins: BBC World News, *Scientific American* blog, *The Hindu*, *New Haven Register*, *Yale Alumni Magazine*, *Daily Mail UK*, numerous other blogs and online news sources.
- For ongoing molecular developmental research on the origins of the bird skull: *New Scientist*, *The Telegraph*, *Escapist Magazine*, Gawker.com, *The Daily Mail*, *Science News Daily*.

#### **Professional Affiliations**

- World Economic Forum; member since 2013
- Society for Integrative and Comparative Biology (SICB); member since 2004
- International Society of Vertebrate Morphologists (ISVM); member since 2005
- Society of Vertebrate Paleontology (SVP); member since 2004
- Sigma Xi; member since 2006
- Phi Beta Kappa Honor Society; member since 2005