

JOHN GATESY

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EDUCATION

- 1993 Ph. D. (Yale University, Department of Geology and Geophysics)
1990 M. Phil. (Yale University, Department of Geology and Geophysics)
1986 B. A. (University of Virginia, Department of Biology)

GRANTS AND AWARDS

- 2015-Current “The phylogeny and evolution of Cetacea: Resolution of rapid radiations and a molecular blueprint for modern whales, dolphins, and porpoises” (University of California, Riverside - NSF Systematics Panel Grant DEB-1457735 - sole P.I. with co P.I.s, M. Springer and P. Morin ~\$615,000; Gatesy now co-PI as of 12/16 with move to AMNH)
- 2013 Subaward of \$10,000 for integration of molecular characters with phenotypic data from NSF Systematics Panel Grant “Evolution of the auditory complex of Mysticeti (Cetacea)” to PI Annalisa Berta (San Diego State University)
- 2012 “Comparative phylogeography and speciation of phrynosomatid lizards of the Baja California Peninsula: Integrating genomics, climate and geology” (UC-Mexus Dissertation Research Grant - P.I., grant proposal written by Ph.D. student A. Gottscho - Joint Doctoral Program In Evolution between UC Riverside and San Diego State University - \$12,000)
- 2012 “Speciation of jumping bristletails (Archaeognatha: Machilidae) of North America with an emphasis on the west coast genus *Neomachilis*” (UC-Mexus Small Grant - P.I., grant proposal written by Ph.D. student E. Stiner UC Riverside - \$1,500)
- 2012 “Speciation of phrynosomatid lizards in the Baja California Peninsula” (UC-Mexus Small Grant - P.I., grant proposal written by Ph.D. student A. Gottscho - Joint Doctoral Program In Evolution between UC Riverside and San Diego State University- \$1,500)
- 2009 United.States Patent #7,521,228 (4/21/2009) "Spider silk protein encoding nucleic acids, polypeptides, antibodies and methods of use thereof" with R. Lewis, C. Hayashi, D. Motriuk (University of Wyoming)
- 2008-2013 “Evolution of the mysticete feeding apparatus: Fossil ‘cetotheres,’ dental genes, and the genetic basis of baleen” (University of California, Riverside - NSF Systematics Panel Grant DEB-0743724 - P.I. with second and third P.I.s, A. Berta and T. Deméré ~\$529,000)
- 2007-2011 "Systematics and evolution of fossil and living delphinidans (dolphins, porpoises, and kin)" (University of California, Riverside - NSF Systematics Panel Grant DEB-0640313- P.I. with second P.I., J. Geisler –supplies and student stipends ~\$300,000)

- 2006-2013 "Resolving mammalian phylogeny with genomic and morphological approaches" (University of California, Riverside - NSF Tree of Life Systematics Panel Grant EF-0629860 - co P.I. with lead P.I. M. Novacek, four other P.I.s, and multiple co P.I.s ~\$3,000,000)
- 2007 Elected Ellerman Trust Distinguished Guest, Stellenbosch University, South Africa.
- 2002-2007 "Phylogenetic utility of rapidly evolving mammalian reproductive proteins" (University of California, Riverside - NSF Systematics Panel Grant DEB-0213171 - sole P.I. with co P.I., W. Swanson ~\$230,000)
- 2002-2007 "Archosaur phylogeny: A total evidence approach at fine taxonomic levels" (University of California, Riverside - NSF Tree of Life Systematics Panel Grant EF-0228629 - P.I. with lead P.I. M. Norell, four other P.I.s, and two co P.I.s at five other institutions ~\$2,020,000)
- 2002-2006 "Taxonomy, phylogeny, and the evolution of feeding strategies in fossil and living mysticete cetaceans" (University of California, Riverside - NSF Systematics Panel Grant DEB-0212572 - P.I. with second and third P.I.s, A. Berta and T. Deméré ~\$360,000)
- 2002-2003 "Phylogenetic analysis of genome size evolution in *Fugu rubripes*" (University of California, Riverside Genomics Institute Core Facility funding - \$4,750)
- 2002 Appointed "Scientific Fellow" (Wildlife Conservation Society, New York Zoological Society).
- 1999-2004 "Cetacean phylogeny: A reconciliation of fossil and neontological data and the importance of taxonomic sampling" (University of Wyoming - NSF Systematics Panel Grant DEB-9985847 - P.I. with second P.I., M. O'Leary ~\$190,000)
- 1995-1998 "Milk protein origins" (University of Arizona - NSF Systematics Panel Grant DEB-9509551 - sole P.I. ~\$90,000)
- 1994 "The origin of k-casein in mammals" (University of Arizona Small Grants recipient -\$5,000)
- 1994-1995 Postdoctoral Fellow for the Analysis of Biological Diversification Research Training Grant-NSF (University of Arizona ~\$62,000)
- 1993-1994 Kalbfleisch Postdoctoral Fellow (American Museum of Natural History ~\$32,000)
- 1992 Estwing Hammer Prize for outstanding performance in field geology (Yale University, Department of Geology and Geophysics)
- 1991 G. Evelyn Hutchinson Prize (Yale Institute for Biospheric Studies)
- 1989 Nixon Griffis Grant recipient (New York Zoological Society - \$3,000)
- 1988-1991 Graduate Fellowship (Yale University)
- 1986 Miller Scholar Award Finalist (University of Virginia, Department of Biology)
- 1982-1986 Phi Beta Kappa/Dean's List 7 semesters (University of Virginia)

RESEARCH/WORK EXPERIENCE

- 2017-Present Senior Research Scientist in Division of Vertebrate Zoology, American Museum of Natural History.
- 2017-Present Adjunct Associate Professor in Biology Department, University of California, Riverside.

- 2007-2016 Associate Professor in Biology Department, University of California, Riverside (75% of 9 month appointment).
- 2003-2007 Assistant Professor in Biology Department, University of California, Riverside (75% of 9 month appointment).
- 1998-2003 Postdoctoral research (University of Wyoming and University of California - Riverside) The origination and evolution of silk protein genes in spiders and phylogenetic supermatrix analyses of living and extinct vertebrates.
- 1995 Assistant Research Scientist (University of Copenhagen, Denmark - one year salary).
- 1994-1998 Postdoctoral research (University of Arizona) The molecular systematics of evolutionary radiations, in particular ungulates, origination and evolution of milk protein genes in mammals, and phylogenetic theory.
- 1997-1999 Fieldwork (University of Wyoming and Cincinnati Museum of Natural History) Prospected Paleocene deposits (Wyoming) for mammalian fossils with Dr. M. Webb, and excavated remains of Jurassic vertebrates (Montana) with Dr. G. Storrs.
- 1993 Postdoctoral research (American Museum of Natural History) The nature of evolutionary trends in phylogenetic systematics, DNA sequence alignment ambiguity, and conservation genetics of crocodylian subspecies.
- 1988-1993 Thesis project (Yale University) Macroevolution of African antelopes. Drs. E. Vrba and R. DeSalle, thesis advisors.
- 1989-1991 Fieldwork (Yale University) Prospected the Meeteetsee Formation (Wyoming and Montana) for Cretaceous fossils with Drs. J. Ostrom and G. Storrs.
- 1986-1988 Research associate (Virginia Museum of Natural History) Directed Earthwatch excavations of Plio-Pleistocene paleontological and archaeological sites in the eastern rift valley of Zaire.
- 1986-1987 Laboratory specialist (University of Virginia Orthopedic Research Lab) Experimental surgery, histology, tissue culture, and protein electrophoresis with Drs. G. Balian and R. Whitehill.
- 1985 Fieldwork (Tyrell Museum of Paleontology) Analysis of Cretaceous vertebrates of the Red Deer River, Alberta, Canada with Dr. D. Brinkman.
- 1985 Independent research (University of Virginia) The link between chemical cues and oviposition preference in beetles with Dr. S. Wasserman.

PUBLICATIONS

- accepted M. O'Leary, M. Orliac, M. Spaulding, and **J. Gatesy**. Artiodactyla. *Companion Volume to the PhyloCode*. K. de Queiroz, J. Gauthier, and P. Cantino, eds.
- 2017 **J. Gatesy**, R. Meredith, J. Janecka, M. Simmons, W. Murphy, M. Springer. Resolution of a concatenation/coalescence kerfuffle: Partitioned coalescence support and a robust family-level tree for Mammalia. *Cladistics* 33: 295-332.
- 2017 M. Springer, **J. Gatesy**. Inactivation of the olfactory marker protein (OMP) gene in river dolphins and other odontocete cetaceans. *Molecular Phylogenetics and Evolution* 109: 375-387.
- 2017 A. Gottscho, D. Wood, A. Vandergast, J. Lemos-Espinal, **J. Gatesy**, T. Reeder. Lineage diversification of fringe-toed lizards (Phrynosomatidae: *Uma notata* complex) in the Colorado

Desert: Delimiting species in the presence of gene flow. *Molecular Phylogenetics and Evolution* 106: 103-117.

- 2016 M. Simmons, **J. Gatesy**. Biases of tree-independent-character-subsampling methods. *Molecular Phylogenetics and Evolution* 100: 424-443.
- 2016 M. Springer, C. Emerling, N. Fugate, R. Patel, J. Starrett, P. Morin, C. Hayashi, **J. Gatesy**. Inactivation of cone-specific phototransduction genes in rod monochromatic cetaceans. *Frontiers in Ecology and Evolution* 4: 61. doi: 10.3389/fevo.2016.00061.
- 2016 M. Simmons, D. Sloan, **J. Gatesy**. The effects of subsampling gene trees on coalescent methods applied to ancient divergences. *Molecular Phylogenetics and Evolution* 97: 76-89.
- 2016 M. Springer, J. Starrett, P. Morin, A. Lanzetti, C. Hayashi, **J. Gatesy**. Inactivation of *C4orf26* in toothless placental mammals. *Molecular Phylogenetics and Evolution* 95: 34-45.
- 2016 M. Springer, **J. Gatesy**. The gene tree delusion. *Molecular Phylogenetics and Evolution* 94: 1-33.
- 2015 M. Springer, A. Signore, J. Paijmans, J. Vélez-Juarbe, D. Domning, C. Bauer, K. He, L. Crerar, P. Campos, W. Murphy, R. Meredith, **J. Gatesy**, E. Willerslev, R. MacPhee, M. Hofreiter, K. Campbell. Interordinal gene capture, the phylogenetic position of Steller's sea cow based on molecular and morphological data, and the macroevolutionary history of Sirenia. *Molecular Phylogenetics and Evolution* 91: 178-193.
- 2015 M. Simmons, **J. Gatesy**. Coalescence vs. concatenation: Sophisticated analyses vs. first principles applied to rooting the angiosperms. *Molecular Phylogenetics and Evolution* 91: 98-122.
- 2014 G. Zhang et al. (many co-authors including **J. Gatesy**). Comparative genomics reveals insights into avian genome evolution and adaptation. *Science* 346: 1311-1320.
- 2014 **J. Gatesy**, M. Springer. Phylogenetic analysis at deep timescales: Unreliable gene trees, bypassed hidden support, and the coalescence/concatalescence conundrum. *Molecular Phylogenetics and Evolution* 80: 231-266.
- 2014 M. Springer, **J. Gatesy**. Land plant origins and coalescence confusion. *Trends in Plant Science* 19: 267-269.
- 2014 M. McGowen, **J. Gatesy**, D. Wildman. Molecular evolution tracks macroevolutionary transitions in Cetacea. *Trends in Ecology and Evolution* 29: 336-346.
- 2013 S. Montgomery, M. McGowen, J. Geisler, C. Fox, L. Marino, and **J. Gatesy**. The evolutionary history of cetacean brain and body size. *Evolution* 67: 3339-3353.
- 2013 R. Meredith, **J. Gatesy**, C. Emerling, V. York, and M. Springer. Rod monochromacy and the coevolution of cetacean retinal opsins. *PLoS Genetics* 9: e1003432.
- 2013 R. Meredith, **J. Gatesy**, and M. Springer. Molecular decay of enamel matrix protein genes in turtles and other edentulous amniotes. *BMC Evolutionary Biology* 13: 20.
- 2013 **J. Gatesy** and M. Springer. Reply to Song et al.: Concatenation versus coalescence versus "concatalescence". *Proceedings of the National Academy of Sciences USA* 110: E1179.
- 2013 **J. Gatesy**, J. Geisler, J. Chang, C. Buell, A. Berta, R. Meredith, M. Springer, and M. McGowen. A phylogenetic blueprint for a modern whale. *Molecular Phylogenetics and Evolution* 66: 479-506.

- 2012 Springer, M., R. Meredith, **J. Gatesy**, C. Emerling, J. Park, D. Rabosky, T. Stadler, C. Steiner, O. Ryder, J. Janecka, C. Fisher, W. Murphy. Macroevolutionary dynamics and historical biogeography of primate diversification inferred from a species supermatrix. *PLoS ONE* 7: e49521.
- 2012 W. Murphy, J. Janecka, T. Stadler, E. Eizirik, O. Ryder, **J. Gatesy**, R. Meredith, and M. Springer,. Response to “Impacts of the Cretaceous terrestrial revolution and KPg extinction on mammal diversification.” *Science* 337: 34.
- 2011 R. Meredith, J. Janecka, **J. Gatesy**, O. Ryder, C. Fisher, E. Teeling, A. Goodbla, E. Eizirik, T. Simao, T. Stadler, D. Rabosky, R. Honeycutt, J. Flynn, C. Ingram, C. Steiner, T. Williams, T. Robinson, A. Burk-Herrick, M. Westerman, N. Ayoub, M. Springer, and W. Murphy. Impacts of the Cretaceous terrestrial revolution and KPg extinction on mammal diversification. *Science* 334: 521-524.
- 2011 R. Meredith, **J. Gatesy**, J. Cheng and M. Springer. Pseudogenization of the tooth gene enamelysin (*MMP20*) in the common ancestor of extant baleen whales. *Proceedings of the Royal Society B* 278: 993-1002.
- 2011 L. Baldo, A. de Queiroz, M. Hedin, C. Hayashi, and **J. Gatesy**. Nuclear-mitochondrial sequences as witnesses of past interbreeding and population diversity in the jumping bristletail *Mesomachilis*. *Molecular Biology and Evolution* 28: 195-210.
- 2011 M. McGowen, S. Montgomery, C. Clark, and **J. Gatesy**. Phylogeny and adaptive evolution of the brain-development gene microcephalin (*MCPHI*) in cetaceans. *BMC Evolutionary Biology* 11: 98-111.
- 2011 R. Meredith, E. Hekkala, G. Amato, and **J. Gatesy**. A phylogenetic hypothesis for *Crocodylus* (Crocodylia) based on mitochondrial DNA: Evidence for a trans-Atlantic voyage from Africa to the New World. *Molecular Phylogenetics and Evolution* 53: 183-191.
- 2011 J. Geisler, M. McGowen, G. Yang, and **J. Gatesy**. A supermatrix analysis of genomic, morphological, and paleontological data from crown Cetacea. *BMC Evolutionary Biology* 11: 112-144.
- 2009 N. Ayoub, M. McGowen, C. Clark, M. Springer, and **J. Gatesy**. Evolution and phylogenetic utility of the melanocortin-1 receptor gene (*MC1R*) in Cetartiodactyla. *Molecular Phylogenetics and Evolution* 52: 550-557.
- 2009 M. McGowen, M. Spaulding, and **J. Gatesy**. Divergence date estimation and a comprehensive molecular tree of extant cetaceans. *Molecular Phylogenetics and Evolution* 53: 891-906.
- 2009 M. Spaulding, M. O'Leary, and **J. Gatesy**. Relationships of Cetacea (Artiodactyla) among mammals: Increased taxon sampling alters interpretations of key fossils and character transformations. *PLoS One* 4(9): e7062. doi:10.1371/journal.pone.0007062.
- 2009 R. Meredith, **J. Gatesy**, W. Murphy, O. Ryder, and M. Springer. Molecular decay of the tooth gene enamelin (*ENAM*) mirrors the loss of enamel in the fossil record of placental mammals. *PLoS Genetics* 5(9): e1000634. doi:10.1371/journal.pgen.1000634.
- 2009 **J. Gatesy**. Whales and even-toed ungulates (Cetartiodactyla). Pp. 511-516 in *Timetree of Life*. S.B. Hedges and S. Kumar, eds., Oxford University Press.
- 2008 **J. Gatesy** and G. Amato. The rapid accumulation of consistent molecular support for intergeneric crocodylian relationships. *Molecular Phylogenetics and Evolution* 48: 1232-1237.

- 2008 M. McGowen, C. Clark, and **J. Gatesy**. The vestigial olfactory receptor subgenome of odontocete whales: Phylogenetic congruence between gene tree reconciliation and supermatrix methods. *Systematic Biology* 57: 574-590.
- 2008 T. Deméré, M. McGowen, A. Berta, and **J. Gatesy**. Morphological and molecular evidence for a stepwise evolutionary transition from teeth to baleen in mysticete whales. *Systematic Biology* 57: 15-37.
- 2008 M. O’Leary and **J. Gatesy**. Impact of increased character sampling on the phylogeny of Cetartiodactyla (Mammalia): Combined analysis including fossils. *Cladistics* 24: 397-442.
- 2007 **J. Gatesy**. A tenth crucial question regarding model use in phylogenetics. *Trends in Ecology and Evolution* 22: 509-510.
- 2007 **J. Gatesy**, R. DeSalle, and N. Wahlberg. How many genes should a systematist sample? Conflicting insights from a phylogenomic matrix characterized by replicated incongruence. *Systematic Biology* 56: 355-363.
- 2007 A. de Queiroz and **J. Gatesy**. The supermatrix approach to systematics. *Trends in Ecology and Evolution* 22: 34-41 (cover article).
- 2007 **J. Gatesy** and W. Swanson. Adaptive evolution and phylogenetic utility of *ACR* (acrosin), a rapidly evolving mammalian fertilization gene. *Journal of Mammalogy* 88: 32-42.
- 2005 **J. Gatesy** and R. Baker. Hidden likelihood support in genomic data: Can forty-five wrongs make a right? *Systematic Biology* 54: 483-492.
- 2004 **J. Gatesy** and M. Springer. A critique of matrix representation with parsimony supertrees. Pp. 369-388 In “Phylogenetic Supertrees: Combining information to reveal the tree of life” (O. Bininda-Emonds, ed.) Kluwer Academic, Netherlands.
- 2004 M. O’Leary, M. Allard, M. Novacek, J. Meng and **J. Gatesy**. Building the mammalian sector of the tree of life: Combining different data and a discussion of divergence times for placental mammals. Pp. 490-516 in *Assembling the Tree of Life*, J. Cracraft and M. Donoghue, eds., Oxford University Press.
- 2004 **J. Gatesy**, R. Baker, and C. Hayashi. Inconsistencies in arguments for the supertree approach: Supermatrices versus supertrees of Crocodylia. *Systematic Biology* 53: 342-355.
- 2003 **J. Gatesy**, G. Amato, M. Norell, R. DeSalle, and C. Hayashi. Combined support for wholesale taxic atavism in gavialine crocodylians. *Systematic Biology* 52: 403-422 (cover article).
- 2003 M. O’Leary, **J. Gatesy**, and M. Novacek. Are the dental data really at odds with the molecular data? Morphological evidence for whale phylogeny (re)reexamined. *Systematic Biology* 52: 853-864.
- 2003 R. DeSalle, M. Branaham, P. O’Grady, and **J. Gatesy**. The Evolution of HOM-C homeoboxes in the dipteran family Drosophilidae. *Insect Molecular Biology*. 12:345-351.
- 2002 **J. Gatesy**, C. Matthee, R. DeSalle, and C. Hayashi. Resolution of a supertree/supermatrix paradox. *Systematic Biology* 51: 652-664.
- 2002 **J. Gatesy**. book review of *Molecular Evolution and Phylogenetics* (M. Nei and S. Kumar). *Molecular Phylogenetics and Evolution* 25: 567-568.
- 2002 P. O’Grady, **J. Gatesy**, and J. Remsen. Partitioning of multiple data sets in phylogenetic analysis. Pages 102-119 In *Techniques in Molecular Systematics and Evolution*. R. DeSalle, W. Wheeler, and G. Giribet, eds., Birkhauser Verlag.

- 2002 **J. Gatesy.** Relative quality of different systematic data sets for cetartiodactyl mammals: Assessments within a combined analysis framework. Pages 45-68 In *Molecular Systematics and Evolution: Theory and Practice*. R. DeSalle, W. Wheeler, and G. Giribet, eds., Birkhauser Verlag (cover article).
- 2002 R. Baker and **J. Gatesy.** Is morphology still relevant? Pages 163-174 In *Molecular Systematics and Evolution: Theory and Practice*. R. DeSalle, W. Wheeler, and G. Giribet, eds., Birkhauser Verlag.
- 2002 **J. Gatesy.** Hippopotamus. Pages 574-576 In *Encyclopedia of Marine Mammals*. W. Perrin, B. Wursig, and J. Thewissen, eds., Academic Press.
- 2001 **J. Gatesy, C. Hayashi, D. Motriuk, J. Woods, and R. Lewis.** Extreme diversity, conservation, and convergence of spider silk fibroin sequences. *Science* 291: 2603-2605.
- 2001 **J. Gatesy and M. O'Leary.** Deciphering whale origins with molecules and fossils. *Trends in Ecology and Evolution*. 16: 562-570 (cover article).
- 2000 **J. Gatesy.** Linked branch support and tree stability. *Systematic Biology* 49: 800-807.
- 2000 **J. Gatesy and P. Arctander.** Hidden morphological support for the phylogenetic placement of *Pseudoryx nghetinhensis* with bovine bovids: A combined analysis of gross anatomical evidence and DNA sequences from five genes. *Systematic Biology* 49: 515-538 (cover article).
- 2000 **J. Gatesy and P. Arctander.** Molecular evidence for the phylogenetic affinities of Ruminantia. Pages 143-155 In *Antelopes, Deer, and Relatives: Fossil Record, Behavioral Ecology, Systematics, and Conservation*. E. Vrba and G. Schaller, eds., Yale University Press.
- 1999 **J. Gatesy, P. O'Grady, and R. Baker.** Corroboration among data sets in simultaneous analysis: Hidden support for phylogenetic relationships among higher level artiodactyl taxa. *Cladistics* 15: 271-313 (cover article).
- 1999 **J. Gatesy, M. Milinkovitch, V. Waddell, and M. Stanhope.** Stability of cladistic relationships between Cetacea and higher level artiodactyl taxa. *Systematic Biology* 48(1): 6-20.
- 1998 **J. Gatesy.** Molecular evidence for the phylogenetic affinities of Cetacea. Pages 63-111 In *The Emergence of Whales: Evolutionary Patterns in the Origin of Cetacea*. J. Thewissen, ed., Advances in Vertebrate Paleobiology Series, Plenum.
- 1997 **J. Gatesy.** More DNA support for a Cetacea/Hippopotamidae clade: The blood-clotting protein gene gamma fibrinogen. *Molecular Biology and Evolution* 14(5): 537-543.
- 1997 **J. Gatesy, G. Amato, E. Vrba, G. Schaller, and R. DeSalle.** A cladistic analysis of mitochondrial ribosomal DNA from the Bovidae. *Molecular Phylogenetics and Evolution* 7(3): 303-319.
- 1996 **J. Gatesy, C. Hayashi, M. Cronin, and P. Arctander.** Evidence from milk casein genes that cetaceans are close relatives of hippopotamid artiodactyls. *Molecular Biology and Evolution* 13(7): 954-963.
- 1994 **J. Gatesy, C. Hayashi, R. DeSalle, and E. Vrba.** Rate limits for mispairing and compensatory change: the mitochondrial ribosomal DNA of antelopes. *Evolution* 48(1): 188-196.
- 1994 N. Boaz, P. Pavlakis, M. McDonnell, and **J. Gatesy.** Early hominid environments in the late Pliocene of eastern Zaire: Analysis of the Senga 13B excavation. *National Geographic Research and Exploration* 10(1): 124-127.
- 1994 E. Vrba and **J. Gatesy.** New hippotragine antelope fossils from the Middle Awash, Ethiopia, in the context of the phylogeny of Hippotragini (Bovidae, Mammalia). *Palaeontologia Africana*. 31: 55-72.

- 1994 W. Wheeler, **J. Gatesy**, and R. DeSalle. Elision: a method for accommodating multiple molecular sequence alignments with alignment-ambiguous sites. *Molecular Phylogenetics and Evolution* 4(1): 1-9.
- 1994 E. Vrba, R. Vaisnys, **J. Gatesy**, K. Wei, and R. DeSalle. Analysis of paedomorphosis using allometric characters: the example of Reduncini antelopes (Bovidae, Mammalia). *Systematic Biology* 43(1): 92-116.
- 1994 G. Amato and **J. Gatesy**. PCR assays of variable nucleotide sites for identification of conservation units. Pages 215-226 In *Molecular Ecology and Evolution: Approaches and Applications*. B. Schierwater, B. Streit, G. Wagner, and R. DeSalle, eds. Birkhauser Verlag, Basel.
- 1993 **J. Gatesy**, R. DeSalle, and W. Wheeler. Alignment-ambiguous nucleotide sites and the exclusion of systematic data. *Molecular Phylogenetics and Evolution* 2(2): 152-157.
- 1993 R. DeSalle, **J. Gatesy**, W. Wheeler, and D. Grimaldi. Working with fossil DNA from amber. *Discovery* 24(1): 19-24.
- 1993 G. Amato, M. Ashley, and **J. Gatesy**. Molecular evolution in living species of rhinoceros: Implications for conservation. *Proceedings from the International Conference on the Biology and Conservation of the Rhinoceros*. O. Ryder, ed. The Zoological Society of San Diego.
- 1992 **J. Gatesy**, D. Yelon, R. DeSalle, and E. Vrba. Phylogeny of the Bovidae (Artiodactyla, Mammalia) based on mitochondrial ribosomal DNA sequences. *Molecular Biology and Evolution* 9(3):433-446.
- 1992 R. DeSalle, **J. Gatesy**, W. Wheeler, and D. Grimaldi. DNA sequences from a fossil termite in Oligo-Miocene amber and their phylogenetic implications. *Science* 257: 1933-1936.
- 1992 **J. Gatesy** and G. Amato. Sequence similarity of 12S ribosomal segment of mitochondrial DNAs of gharial and false gharial. *Copeia* 1:241-243.
- 1988 Whitehill, R., S. Drucker, J. McCoig, W. Hooper, **J. Gatesy**, R. Fechner, and G. Balian. Induction and characterization of an interface tissue by implantation of methylmethacrylate cement into the posterior part of the cervical spine of the dog. *J. Bone Joint Surg. Am.* 70:51-59.

TEACHING

- 2015-2016 Organisms in their Environment – BIOL003 (University of California – Riverside: Winter 2015, 2016).
- 2011-2016 Laboratory in Molecular Phylogenetics and Evolution - BIOL118 (University of California – Riverside: Spring 2011, 2012, 2013, 2014, 2015, 2016).
- 2011-2015 Graduate Student Colloquium (assigned grades) – EEOB265 (University of California – Riverside: Fall/Winter/Spring 2011, 2012, 2013, 2014, 2015).
- 2009 Biology of Human Problems - BIOL110 (University of California – Riverside: Spring 2009).
- 2008-2016 Freshman Advising Seminar - NASC093 (University of California – Riverside: Fall 2008, 2011, 2014, 2016).
- 2008-2014 Graduate Seminar in Genetics and Evolution - EEOB282 (University of California – Riverside: Winter 2008, 2009, 2011, 2012, 2013, 2014).
- 2004-2016 Directed Research and Research for Thesis or Dissertation - EEOB297, EEOB299 (University of California – Riverside: Research with graduate students, M. McGowen, E. Stiner, A. Gottscho, David Haisten, Agnese Lanzetti, Keenan Morrison, and Heather Heinz).

- 2004-2013 Junior and Senior Research - BIOL194, BIOL197, and BIOL199 (University of California – Riverside: Research with undergraduate students, W. Ahmadi, R. Aguilar, J. Chang, K. Kalkat, J. Lee, R. Shing, E. Ramos, M. Spaulding, and S. Wright).
- 2004-2007 Introductory Biology - BIOL5C (University of California – Riverside: 2004, 2005, 2006, 2007).
- 2004-2005 Macroevolution - Three hour seminar (University of California –Irvine: Graduate Core Evolution Course, Dept. of Ecology and Evolutionary Biology: 2004, 2005).
- 2003-2007 Systematics - BIOL112 (University of California – Riverside: Fall 2003, 2004, 2005, Winter 2007).
- 2003-2004 Departmental Seminar (organizer and assigned grades) – BIOL252 (University of California – Riverside: Fall 2003, Winter 2004, Spring 2004).
- 1990 Trace Fossil Analysis, teaching assistant for Dr. D. Seilacher (Yale University).
- 1989 Paleontology and Evolutionary Theory, teaching assistant for Dr. E. Vrba (Yale University).
- 1989 Evolutionary Biology, teaching assistant for Drs. J. Powell and R. DeSalle (Yale University).
- 1988 Macroevolution, teaching assistant for Dr. E. Vrba (Yale University).

OUTREACH/SERVICE

- 2017 Panel member for NSF review of Systematic Biology grants (in late October).
- 2017 Associate Editor for *Cladistics*
- 2015 Associate Editor for *Molecular Phylogenetics and Evolution*
- 2014-2015 Host for sabbatical professor: Dr. Shixia Xu, Nanjing Normal University, China
- 2014-2015 Written Exam Committee chairperson (Evolution, Ecology, and Organismal Biology Graduate Program, University of California – Riverside).
- 2014 Department Safety Coordinator (Biology Department, University of California – Riverside)
- 2012-2015 Graduate Advisor for Continuing Students and member of Executive Committee (Evolution, Ecology, and Organismal Biology Graduate Program, University of California – Riverside).
- 2011-2016 Laboratory Safety Officer (Biology Department, University of California – Riverside)
- 2011-2014 Established collaborative website on whale, dolphin, and porpoise evolution with co-organizer J. Geisler: http://nyit.edu/nycom/research/project_personnel_John_Gatesy
- 2011-2013 Member of International Crocodylian Genomes Working Group (ICGWG).
- 2011 Advisor for Student Affairs Workshop (Biennial Conference on the Biology of Marine Mammals in Tampa, Florida. Evolutionary Biology and Systematics group).
- 2010-2016 Executive Committee for Joint Doctoral Program in Evolution (San Diego State University and University of California – Riverside).
- 2010 Panel member for NSF review of Systematic Biology grants.

- 2008-2014 Awards Committee (Biology Department, University of California – Riverside: 2008-2009, 2011-2014).
- 2007-2011 Elected Council Member of The Society of Systematic Biologists (SSB) for three year term.
- 2006 Host for sabbatical professor: Dr. Conrad Matthee, Stellenbosch University, South Africa
- 2005-2012 Graduate Admissions Committee (Evolution, Ecology, and Organismal Biology Graduate Program, University of California – Riverside: 2005-2008, 2010-2012).
- 2003 Served on advisory panel (Cetacean systematics: Approaches in genetics, morphology, and behavior. Symposium at Scripps Institution of Oceanography, La Jolla, CA).
- 2003 Panel member for NSF Review of “Assembling the Tree of Life” grants.
- 2000-2015 Interviews for journal/magazine/newspaper/Internet articles:
Science, Nature, New York Times, Discover, New Scientist, Current Biology, UPI, Science News, Casper Star Tribune, The Daily Telegraph, BioMedNet News, Livescience.com, Houston Chronicle, Yale Daily News, and Calgary Herald, UC Riverside Highlander.
- 2000-2001 Editorial board member for *Systematic Biology*.
- 1993-2015 Reviewed manuscripts for:
Acta Theriologica, African Zoology, American Naturalist, Aquatic Mammals, Biochemistry, Bioessays, Bioinformatics, Biological Reviews, Biological Journal of the Linnean Society, Biology Letters, Biomacromolecules, BMC Evolutionary Biology, BMC Genomics, Briefings in Bioinformatics, Cladistics, Conservation Genetics, Current Biology, Evolution, Frontiers in Zoology, Gene, Geology, Geological Magazine, Journal of Animal Breeding and Genetics, Journal of Biodiversity and Endangered Species, Journal of Biogeography, Journal of Biomedical Informatics, Journal of Evolutionary Biology, Journal of Heredity, Journal of Experimental Zoology Part A – Ecological Genetics and Physiology, Journal of Earth Science and Climatic Change, Journal of Experimental Zoology Part B – Molecular and Developmental Evolution, Journal of Genetics, Journal of Heredity, Journal of Mammalian Evolution, Journal of Molecular Evolution, Journal of Orthodontics and Endodontics, Journal of Parasitology, Journal of Vertebrate Paleontology, Journal of Zoological Systematics and Evolutionary Research, Marine Genomics, Marine Mammal Science, Mitochondrial DNA, Molecular Biology and Evolution, Molecular Ecology Resources, Molecular Phylogenetics and Evolution, Nature, Nature Communications, Naturwissenschaften, Nature Ecology and Evolution, PeerJ, PLoS Biology, PLoS Genetics, PLoS One, Proceedings of the National Academy of Sciences (USA), Proceedings of the Royal Society of London (Series B), Science, Royal Society Open Science, Science Asia, Systematic Biology, Systematic Entomology, The American Journal of Human Genetics, Translational Biomedicine, Trends in Ecology and Evolution, Virology, Zoological Science.
- 1993-2015 Reviewed grants for:
Australian Marine Mammal Center, Austrian Science Fund (START Program Grant), Lise Meitner Postdoctoral Research (Austria), Sigma Delta Epsilon (Graduate Women in Science Fellowships), European Research Council Grant (Evolutionary, Population, and Environmental Biology Panel), Lewis and Clark Fund for Exploration and Field Research, NSF Systematic Biology Panel, NSF Assembling the Tree of Life Panel, NSF Biodiversity Inventories Panel, NSF Sedimentary Geology and Paleobiology Panel, NSF Processes, Structures, and Integrity Program Panel, NSF Career Award Panel, NSF International Research Fellow Awards.