

DEPARTMENT OF BIOLOGICAL SCIENCES
TEXAS TECH UNIVERSITY
MS 43131 • Lubbock, TX 79409
PHONE 806-834-1677 • FAX 806-742-2963 • E-MAIL DAVID.A.RAY@TTU.EDU
HTTP://WWW.DAVIDRAYLAB.COM
HTTP://WWW.CROCGENOMES.ORG

DAVID A. RAY

PERSONAL

Birthdate: August 19, 1968.
Married to Rhonda L. Ray.

EDUCATION

Ph.D. - Texas Tech University (Zoology) December, 2002.
Dissertation Title: An Examination of the Crocodilian Mitochondrial Control
Region: Structural and Functional Units and Utility in Phylogenetic and
Phylogeographic Analyses.
M.A.T. - University of South Carolina (Biological Sciences and Secondary
Education) May, 1992.
B.S. - University of South Carolina (Biological Sciences) May, 1990.

PROFESSIONAL EXPERIENCE

Associate Professor, Texas Tech University; September, 2013 – present.
Associate Professor, Mississippi State University; July, 2013 – August, 2013.
Assistant Professor, Mississippi State University; July, 2009 – June, 2013.
Assistant Professor, West Virginia University; July, 2005 – June, 2009.
Director, Biology Department Genomics Core Facility (WVU-GCF)
Post-Doctoral Fellow, Louisiana State University; August, 2002 - July, 2005.
Supervisor: Mark A. Batzer, Ph.D.
Research Assistant, TTU Biological Sciences, Summer 1998 & 2000, Spring 2001.
Teaching Assistant, TTU Biological Sciences, 1997- 2002.
High School Teacher, A. C. Flora H. S. and Columbia H. S. 1992-1997.

PROFESSIONAL SERVICE

Cross College Seminar Organizer – Organized Fall 2012 Seminar series in conjunction with
Department of Biology (College of Arts and Sciences) at MSU.
Director: International Crocodilian Genomes Working Group (ICGWG), 2010 – 2016,
<http://www.crocg genomes.org/>.
Co-Director: The 1000 Bat Genomes Project, 2016-present, <http://bat1k.com>.
Director: WVU Genomics Core Facility, 2005 – 2009.
Research Associate: The Museum of Texas Tech University.
Committees at TTU: *Department of Biology*: Quantitative Biologist Faculty Search (2017-2018),
Mammalian Functional Genomics Faculty Search, (2014-15; Chair), Promotion and
Tenure (2013-present), Student Scholarships and Awards (2013-2015),
Microbiology/Metagenomics Faculty Search (2015-2016), Landscape Genomics
Faculty Search (2016-2017; Chair), Faculty Awards Committee (2016-present; Chair),
Ad-Hoc Curriculum Committee for Genetics/Genomics (2017-2018, Chair). *College*

of Arts and Sciences: Blue Ribbon Committee (2015-2016). *University*: IACUC (2014-present).

Committees at MSU: *Department of Biochemistry, Molecular Biology, Entomology and Plant Pathology*: Chair of insect physiology faculty search committee (2011). *Department of Biochemistry and Molecular Biology*: Faculty search committee (2009-2010). *College of Agriculture and Life Sciences*: Excellence in Teaching (2009-2013), CALS Scholarship Committee (2010-13).

Committees at WVU: *Department of Biology*: Core Curriculum (2005-2006), Graduate Committee (2006-2007), Microbiologist Faculty Search Committee (2006-2007), Promotion Evaluation and Tenure Committee (2007-2008), Curriculum Committee (2008-2009). *Eberly College of Arts and Sciences*: Curriculum and Academic Quality Committee (2008-2009).

Professional Society Memberships: Society for Molecular Biology and Evolution, Society for the Study of Evolution, National Center for Science Education, Reptile Genome Working Group, Texas Tech University Association of Biologists, 1997-2002

Member of the IUCN Crocodile Specialist Group

Associate Editor for *Gene*, 2013 – present.

Executive Editor for *Analytical Biochemistry*, 2018 – present

Editorial Review Boards for *Mobile DNA*, *Frontiers in Evolutionary and Population Genetics*.

Reviewer (ad hoc) for *American Journal of Primatology*, *Analytical Biochemistry*, *BMC Bioinformatics*, *Biology Letters*, *BMC Biology*, *BMC Evolutionary Biology*, *BMC Genomics*, *Chromosome Research*, *DNA and Cell Biology*, *European Journal of Human Genetics*, *Gene*, *Genome Biology and Evolution*, *Genome Research*, *Genomics*, *Human Genetics*, *Human Mutation*, *the International Journal of Parasitology*, *Journal of Experimental Zoology*, *Journal of Mammalogy*, *Journal of Molecular Evolution*, *Marine Biology*, *Mitochondrion*, *Mobile DNA*, *Molecular Biology and Evolution*, *Molecular Ecology*, *Molecular Phylogenetics and Evolution*, *National Institutes of Health*, *National Science Foundation*, *PLoS Genetics*, *PLoS ONE*, *Proceedings of the National Academy of Sciences, USA*, *Southeastern Naturalist*, *Trends in Genetics*.

Amphibian and reptile public awareness lectures (8) - Lubbock, TX
Ramirez Elementary, Harwell Elementary, Hardwick Elementary, Crestview Elementary, Bright Horizons Preschool

Bat awareness presentations – Starkville, MS; Sudduth Elementary (2), Emerson Family School (1)

Crocodilian awareness presentation – Sumter, SC; Alice Drive Elementary (1)

Osher Lifelong Learning Institute class – February 24-25, 2014, *Genomes and Genomics*

TEACHING EXPERIENCE

Texas Tech University

BIOL 3416 – Genetics (Fall 2015, Fall 2017 (Honors), Spring 2019)

ZOOL 6305 – Molecular Systematics (Fall 2015)

BIOL 6301 – Transposable Elements (Fall 2014, Fall 2016, Fall 2018)

BIOL 4301/6301 – Genomes and Genome Evolution (Spring semesters 2014 – 2016. Fall 2017)

BIOL 4301 – Genomes and Society (Spring 2017, 2018)

Mississippi State University:

BCH 4113 – Essentials of Molecular Genetics (Summer 2011 & 2012)
 BCH 4713/6713 – Molecular Biology (Fall semesters 2009 – present)
 BCH 3901 – Undergraduate Seminar (Spring 2011)
 BCH 8101 - Graduate Seminar (Spring semesters 2011 – present)

West Virginia University:
 Bio 219 - The Living Cell (Fall semesters 2005-2008)
 Bio 493/793 - Human Molecular Genetics (Alternating Spring semesters 2007-2009)
 Bio 793T – Molecular Systematics (Spring 2008)

Louisiana State University:
 Biology 4800, Human Molecular Genetics (Spring semesters 2004-2005) co-instructed with Mark Batzer

Texas Tech University 1997- 2002.
 Teaching Assistant: Genetics, Introductory Biology (Honors), Vertebrate Structure, Human Anatomy and Physiology.

Columbia High School, Columbia, S. C.
 Biology, Physics (Advanced Placement)

A. C. Flora High School, Columbia S. C.
 Biology, Chemistry, Environmental Science, Marine Biology, Physics.

PUBLICATIONS (PEER-REVIEWED)

81. L Doronina, O Reising, H Clawson, DA Ray, and J Schmitz (In press) True homoplasy of retrotransposon insertions in primates. *Systematic Biology*.
80. E Teeling, S Vernes, L Davalos, DA Ray, MTP Gilbert, E Myers, and Bat1K Consortium (2018) Bat1K: A proposal to generate chromosome-level genomes for all living bat species. *Annual Review of Animal Biosciences* 6:23-46.
79. RN Platt II, MW Vandewege, and DA Ray (2018) Mammalian transposable elements and their impacts on genome evolution. *Chromosome Research* 26:25-43.
78. RN Platt II, BC Faircloth, KAM Sullivan, T Kieran, TC Glenn, MW Vandewege, TE Lee, RJ Baker, RD Stevens, and DA Ray (2017) Conflicting evolutionary histories of the mitochondrial and nuclear genomes in New World Myotis. *Systematic Biology* 67:236-249.
77. KAM Sullivan, RN Platt II, RD Bradley, and DA Ray (2017) Whole mitochondrial genomes provide increased resolution and indicate paraphyly in deer mice. *BMC Zoology* 2:11
76. ES Rice, S Kohno, J St. John, S Pham, J Howard, L Lareau, B O'Connell, G Hickey, J Armstrong, A Deran, I Fiddes, RN Platt II, C Gresham, F McCarthy, C Kern, D Haan, Schmidt, J Sanford, DA Ray, B Paten, LJ Guillette Jr, and RE Green. (2017) Improved assembly of American alligator genome reveals conserved architecture of estrogen signaling. *Genome Research* 27:686-696.
75. CG Sotero-Caio*, RN Platt II*, A Suh, and DA Ray (2017) Evolution and diversity of transposable elements in vertebrate genomes. *Genome Biology and Evolution* 9(1):161-177.
 * These authors contributed equally to this work.
74. A Andere, RN Platt II, DA Ray, and C Picard (2016) Genome sequence of *Phormia regina* Meigen (Diptera: Calliphoridae): Implications for medical, veterinary and forensic research. *BMC Genomics* 17:842.
73. RN Platt II, S Mangum, and DA Ray (2016) Pinpointing the vesper bat transposon revolution using the *Miniopterus natalensis* genome. *Mobile DNA* 7:12.
72. MW Vandewege, RN Platt II, DA Ray and FG Hoffmann (2016) Transposable element targeting by piRNAs in Laurasiatherians with distinct transposable element histories. *Genome Biology and Evolution* 8(5):1327-1337.

71. MW Vandewege, S Mangum, T Gabaldon, TA Castoe, DA Ray and FG Hoffmann (2016) Contrasting patterns of evolutionary diversification in the olfactory repertoires of reptile and bird genomes. *Genome Biology and Evolution* 8(3):470-480.
70. RN Platt II, L Blanco-Berdugo and DA Ray (2016) Accurate transposable element annotation is vital when analyzing new genome assemblies. *Genome Biology and Evolution* 8(2) 403-410.
69. FG Hoffmann, LP McGuire, BA Counterman and DA Ray (2015) Transposable elements and small RNAs: Genomic fuel for species diversity. *Mobile Genetic Elements* 5(5):1-4.
68. RN Platt III, Y Zhang, DJ Witherspoon, J Xing, A Suh, MS Keith, LB Jorde, RD Stevens and DA Ray (2015) Targeted capture of phylogenetically informative Ves SINE insertions in genus *Myotis*. *Genome Biology and Evolution* 7(6):1664-1675.
67. DA Ray, HJT Pagan, RN Platt III, AR Kroll, S Schaack and RD Stevens (2015) Differential SINE evolution in vesper and non-vesper bats. *Mobile DNA* 6:10.
66. MP Ramakodi, B Singh, JD Wells, F Guerrero and DA Ray (2015) A 454 sequencing approach to dipteran mitochondrial genomes research. *Genomics* 105(1):53-60.
65. A Suh, G Churakov, MP Ramakodi, RN Platt II, J Jurka, KK Kojima, J Caballero, A Smit, KA Vliet, FG Hoffmann, J Brosius, RE Green, EL Braun, DA Ray and J Schmitz (2015) Multiple lineages of ancient CR1 retroposons shaped the early genome evolution of amniotes. *Genome Biology and Evolution* 7(1):205-217.
64. AY Chong, KK Kojima, J Jurka, AFA Smit, DA Ray, SR Isberg and J Gongora (2014) Replication and evolution of ancient endogenous retroviruses - insights from the crocodylian genomes. *Retrovirology* 11:71.
63. A Suh, CC Weber, C Kehlmaier, EL Braun, RE Green, U Fritz, DA Ray and H Ellegren (2014) Early Mesozoic coexistence of amniotes and hepadnaviridae. *PloS Genetics* 10(12): e1004559.
62. RE Green, EL Braun, J Armstrong, D Earl, N Nguyen, G Hickey, MW Vandewege, JA St John, S Capella-Gutiérrez, TA Castoe, C Kern, MK Fujita, JC Opazo, J Jurka, KK Kojima, J Caballero, RM Hubley, A Smit, RN Platt, CA Lavoie, MP Ramakodi, JW Finger Jr, A Suh, SR Isberg, L Miles, AY Chong, W Jaratlerdsiri, J Gongora, C Moran, A Iriarte, BC Faircloth, J McCormack, SC Burgess, SV Edwards, E Lyons, C Williams, M Breen, JT Howard, CR Gresham, DG Peterson, J Schmitz, DD Pollock, D Haussler, EW Triplett, G Zhang, N Irie, ED Jarvis, CA Brochu, CJ Schmidt, FM McCarthy, FG Hoffmann, TC Glenn, T Gabaldón, B Paten, and DA Ray (2014) Three crocodylian genomes reveal ancestral patterns of evolution among archosaurs. *Science* 346: 1254449.
61. G Zhang, C Li, Q Li, B Li, DM Larkin, C Lee, JF Storz, A Antunes, RW Meredith, A Ödeen, J Cui, Q Zhou, L Xu, H Pan, Z Wang, L Jin, P Zhang, H Hu, W Yang, J Hu, J Xiao, Z Yang, Y Liu, Q Xie, J Lian, P Wen, F Zhang, H Li, Y Zeng, Z Xiong, S Liu, L Zhou, Z Huang, N An, J Wang, Q Zheng, Y Xiong, G Wang, B Wang, J Wang, Y Fang, R da Fonseca, A Alfaro-Núñez, M Schubert, L Orlando, T Mourier, J Howard, G Ganapathy, J Smith, M Farré, J Narayan, G Slavov, MN Romanov, R Borges, JP Machado, I Khan, MS Springer, J Gatesy, FG Hoffmann, JC Opazo, O Håstad, MJ Greenwold, RH Sawyer, HK Kim, K-W Kim, N Li, Y Huang, MW Bruford, X Zhan, A Dixon, M Bertelsen, E Derryberry, W Warren, S Li, DA Ray, RE Green, SJ O'Brien, D Griffin, WE Johnson, D Haussler, OA Ryder, E Willerslev, G Graves, P Alström, J Fjeldså, D Mindell, SV Edwards, EL Braun, C Rahbek, DW Burt, P Houde, Y Zhang, H Yang, J Wang, ED Jarvis, MTP Gilbert, J Wang, and the Avian Genome Consortium (2014) Comparative genomics across modern bird species reveal insights into pan-avian genome evolution and trait biodiversity. *Science* 346:1311-1320.

60. W Jaratlerdsiri, J Deakin, RM Godinez, X Shan, DG Peterson, S Marthey, E Lyons, FM McCarthy, SR Isberg, DP Higgins, AY Chong, J St John, TC Glenn, DA Ray and J Gongora (2014) Comparative analyses reveal adaptive MHC structure in the saltwater crocodile (*Crocodylus porosus*). PLoS ONE 9(12):e114631
59. ED Jarvis, S Mirarab, AJ Aberer, B Li, P Houde, C Li, SYW Ho, BC Faircloth, B Nabholz, JT Howard, A Suh, CC Weber, RR da Fonseca, J Li, F Zhang, H Li, L Zhou, N Narula, L Liu, G Ganapathy, B Boussau, MS Bayzid, V Zavidovych, S Subramanian, T Gabaldón, S Capella-Gutiérrez, J Huerta-Cepas, B Rekepalli, K Munch, M Schierup, B Lindow, WC Warren, D Ray, RE Green, M Bruford, X Zhan, A Dixon, S Li, N Li, Y Huang, EP Derrberry, MF Bertelsen, F Sheldon, RT Brumfield, C Mello, PV Lovell, M Wirthlin, JA Samaniego, AMV Velazquez, A Alfaro-Núñez, PF Campos, T Sicheritz-Ponten, A Pas, T Bailey, P Scofield, M Bunce, D Lambert, Q Zhou, P Perelman, AC Driskell, G Ruby, B Shapiro, Z Xiong, Y Zeng, S Liu, Z Li, B Liu, K Wu, J Xiao, X Yinqi, Q Zheng, Y Zhang, H Yang, J Wang, L Smeds, FE Rheindt, M Braun, J Fjeldsa, L Orlando, K Barker, KA Jönsson, W Johnson, K-P Koepfli, S O'Brien, D Haussler, OA Ryder, C Rahbek, E Willerslev, GR Graves, TC Glenn, J McCormack, D Burt, H Ellegren, P Alström, S Edwards, A Stamatakis, DP Mindell, J Cracraft, EL Braun, T Warnow, W Jun, MTP Gilbert and G Zhang (2014) Whole genome analyses resolve the early branches in the tree of life of modern birds. Science 346:1320-1321.
58. JB Johnson, JH Roberts, TL King, JW Edwards, WM Ford, DA Ray (2014) Genetic structuring of northern myotis (*Myotis septentrionalis*) at multiple spatial scales. Acta Theriologica 59(2):223-231.
57. RN Platt, MW Vandewege, C Kern, CJ Schmidt, FG Hoffmann and DA Ray (2014) Large numbers of novel miRNAs originate from DNA transposons and are coincident with a large species radiation in bats. Molecular Biology and Evolution 31(6):1536-1545.
56. TA Castoe, APJ de Koning, KT Hall, DC Card, DR Schield, MK Fujita, RP Ruggiero, JF Degner, JM Daza, W Gu, J Reyes-Velasco, KJ Shaney, JM Castoe, SE Fox, AW Poole, D Polanco, J Dobry, MW Vandewege, Q Li, R Schott, A Kapusta, P Minx, C Feschotte, P Uetz, DA Ray, FG Hoffman, R Bogden, EN Smith, BSW Chang, F Vonk, NR Casewell, CV Henkel, MK Richardson, SP Mackessy, AM Bronikowski, M Yandell, WC Warren, SM Secor, and DD Pollock (2013) The Burmese python genome reveals the molecular basis for extreme adaptation in snakes. Proceedings of the National Academy of Sciences of the USA 110(51):20645-20650
55. M Supple, H Hines, C Lavoie, DA Ray, D Nielson, C Salazar, D Dasmahapatra, WO McMillan and B Counterman (2013) Genomic architecture of adaptive color pattern divergence and convergence in *Heliconius* butterflies. Genome Research 23:1248-1257.
54. R-L Ge, Q Cai, Y-Y Shen, A San, L Ma, Y Zhang, X Yi, Y Chen, L Yang, Y Huang, R He, Y Hui, M Hao, Y Li, B Wang, X Ou, J Xu, Y Zhang, K Wu, C Geng, W Zhou, Y Zhou, DM Irwin, Y Yang, L Ying, H Bao, J Kim, DM Larkin, J Ma, HA Lewin, J Xing, RN Platt, DA Ray, L Auvil, B Capitanu, X Zhang, G Zhang, RW Murphy, J Wang, Y-P Zhang, and J Wang (2013) Draft genome sequence of the Tibetan antelope. Nature Communications 4: 1858.
53. The *Heliconius* Genome Consortium (2012) Genomic evidence for promiscuous exchange of adaptations among *Heliconius* butterfly species. Nature 487:94-98.
52. RN Platt and DA Ray (2012) A non-LTR retroelement extinction in *Spermophilus tridecemlineatus*. Gene 500:47-53.
51. HJT Pagán, J Macas, P Novák, ES McCulloch, RD Stevens, and DA Ray (2012) Survey

- sequencing reveals elevated DNA transposon activity, novel elements, and variation in repetitive landscapes among bats. *Genome Biology and Evolution* 4(4):575-585.
50. RD Stevens, MM Gavilanez, JS Tello and DA Ray (2012) Phylogenetic structure illuminates mechanistic role of environmental heterogeneity on community organization. *Journal of Animal Ecology* 81(2) 455-462.
49. JA St. John, EL Braun, SR Isberg, LG Miles, AY Chong, J Gongora, P Dalzell, C Moran, B Bedhom, A Abzhanov, SC Burgess, AM Cooksey, TA Castoe, NG Crawford, LD Densmore, JC Drew, SV Edwards, BC Faircloth, MK Fujita, MJ Greenwold, FG Hoffmann, JM Howard, T Iguchi, DE Janes, SY Khan, S Kohno, AJ de Koning, SL Lance, FM McCarthy, JE McCormack, ME Merchant, DG Peterson, DD Pollock, N Pourmand, BJ Raney, KA Roessler, JR Sanford, RH Sawyer, CJ Schmidt, EW Triplett, TD Tuberville, M Venegas-Anaya, JT Howard, ED Jarvis, LJ-Jr Guillette, TC Glenn, RE Green, DA Ray (2012) Sequencing three crocodylian genomes to illuminate the evolution of archosaurs and amniotes. *Genome Biology* 13:415.
48. P Chouvarine, AM Cooksey, FM McCarthy, DA Ray, BB Baldwin, SC Burgess, and DG Peterson (2012) Transcriptome-based differentiation of closely-related *Miscanthus* lines. *PLoS ONE* 7(1): e29850.
47. PR Meganathan, HJT Pagan, ES McCulloch, RD Stevens and DA Ray (2012) Complete mitochondrial genome sequences of three bats species and whole genome mitochondrial analyses reveal patterns of codon bias and lend support to a basal split in Chiroptera. *Gene* 492:121-129.
46. JD Smith and DA Ray (2011) Expedited batch processing and analysis of transposon insertions. *BMC Research Notes* 4:482.
45. J Alföldi, F Di Palma, M Grabherr, C Williams, L Kong, E Mauceli, P Russell, CB Lowe, R Glor, JD Jaffe, DA Ray, S Boissinot, AM Shedlock, C Botka, TA Castoe, JK Colbourne, MK Fujita, RG Moreno, BF ten Hallers, D Haussler, A Heger, D Heiman, DE Janes, J Johnson, PJ de Jong, MY Koriabine, P Novick, CL Organ, SE Peach, S Poe, DD Pollock, K de Queiroz, T Sanger, S Searle, JD Smith, Z Smith, R Swofford, J Turner-Maier, J Wade, S Young, A Zadissa, Genome Sequencing Platform and Whole Genome Assembly Team, SV Edwards, TC Glenn, CJ Schneider, JB Losos, ES Lander, M Breen, CP Ponting, K Lindblad-Toh (2011) The genome of *Anolis carolinensis*, the green anole lizard, and a comparative analysis with birds and mammals. *Nature* 477:587–591.
44. TA Castoe, APJ de Koning, KT Hall, KD Yokoyama, W Gu, EN Smith, C Feschotte, P Uetz, DA Ray, J Dobry, R Bogden, SP Mackessy, AM Bronikowski, WC Warren, SM Secor, and DD Pollock (2011) Sequencing the genome of the Burmese python (*Python molurus bivittatus*) as a model for studying extreme adaptations in snakes. *Genome Biology* 12:406.
43. PR Meganathan, B Dubey, MA Batzer, DA Ray and I Haque (2011) Complete mitochondrial genome sequences of three *Crocodylus* species and their comparison within the Order Crocodylia. *Gene* 478:35-41.
42. J Thomas, M Sorourian, D Ray, RJ Baker and EJ Pritham (2011) The limited distribution of Helitrons to vesper bats supports horizontal transfer. *Gene* 474:52-58.
41. DA Ray and MA Batzer (2011) Reading TE leaves: New approaches to the identification of transposable element insertions. *Genome Research* 21:813-820.
40. P Novick, JD Smith, M Floumanhaft, DA Ray and S Boissinot (2011) The evolution and diversity of DNA transposons in the genome of the lizard *Anolis carolinensis*. *Genome Biology and Evolution* 3:1-14.
39. PR Meganathan, B Dubey, MA Batzer, DA Ray and I Haque (2010) Molecular phylogenetic

- analyses of genus *Crocodylus* (Eusuchia, Crocodylia, Crocodylidae) and the taxonomic position of *Crocodylus porosus*. *Molecular Phylogenetics and Evolution* 57:393-402.
38. HJT Pagan, JD Smith, RM Hubley and DA Ray. (2010) *PiggyBac*-ing on a primate genome: Novel elements, recent activity and horizontal transfer. *Genome Biology and Evolution* 2:293-303.
 37. P Novick, JD Smith, DA Ray and S Boissinot (2010) Independent and parallel lateral transfer of DNA transposons in tetrapod genomes. *Gene* 449:85-94.
 36. DA Ray, RN Platt and MA Batzer (2009) Reading between the LINEs to see into the past. *Trends in Genetics* 25(11):475-479.
 35. ML Thompson, AE Gauna, ML Williams and DA Ray (2009) Multiple chicken repeat 1 (CR1) lineages in the genomes of oestroid flies. *Gene* 448:40-45.
 34. X Shan, DA Ray, JA Bunge and DG Peterson (2009) A bacterial artificial chromosome (BAC) library for the Australian saltwater crocodile (*Crocodylus porosus*) and its utilization in gene isolation and genome characterization. *BMC Genomics* 10:S9.
 33. DA Ray, C Feschotte, HJT Pagan, JD Smith, E Pritham, P Arensburger, PW Atkinson and NL Craig. (2008) Multiple waves of recent DNA transposon activity in the bat, *Myotis lucifugus*. *Genome Research* 18:717-728.
 32. WC Warren, et al. (86 co-authors) (2008) Genome analysis of the platypus reveals unique signatures of evolution. *Nature* 453:175-183.
 31. TR Rainwater, KW Selcer, LM Nespoli, AG Finger, DA Ray, SG Platt, PN Smith, LD Densmore, TA Anderson and ST McMurry (2008) Plasma vitellogenin in Morelet's crocodiles from contaminated habitats in northern Belize. *Environmental Pollution* 153:101-109.
 30. J Xing, DJ Witherspoon, DA Ray, MA Batzer and LB Jorde (2007) Mobile elements and primate evolution. *Yearbook of Physical Anthropology* 50:2-19.
 29. W Gu, DA Ray, JA Walker, E Barnes, A Gentles, PB Samollow, J Jurka, MA Batzer and DD Pollock (2007) SINEs, evolution and genome structure in the opossum. *Gene* 396(1):46-58.
 28. TS Mikkelsen, et al. (52 co-authors) (2007) Genome of the marsupial *Monodelphis domestica* reveals lineage-specific innovation in coding and non-coding sequences. *Nature* 447(7141):115-230.
 27. J Xing, H Wang, Y Zhang, DA Ray, AJ Tosi, TR Disotell and M.A. Batzer (2007) A mobile element based evolutionary history of guenons (Tribe Cercopithecini). *BMC Evolutionary Biology* 5:5.
 26. DA Ray, HJT Pagan, ML Thompson and RD Stevens (2007) Bats with hATs: Evidence for recent DNA transposon activity in genus *Myotis*. *Molecular Biology and Evolution* 24:632-639.
 25. SW Herke, J Xing, DA Ray, JW Zimmerman, R Cordaux and MA Batzer (2007) A SINE-based dichotomous key for primate identification. *Gene* 390:39-51
 24. DA Ray*, JA Walker* and MA Batzer (2007) Mobile element-based forensics. *Mutation Research* 616: 24-33. * These authors contributed equally to this work.
 23. DA Ray (2007) SINEs of progress: Mobile element applications for molecular ecology. *Molecular Ecology* 16: 19-33.
 22. DA Ray, J Xing, A-H Salem and MA Batzer (2006) SINEs of a nearly perfect character. *Systematic Biology* 55(6): 928-935.
 21. DJ Witherspoon, EE Marchani, WS Watkins, CT Ostler, SP Wooding, BA Anders, JD

- Fowlkes, S Boissinot, AV Furano, DA Ray, AR Rogers, MA Batzer and LB Jorde (2006) Human population genetic structure and diversity inferred from polymorphic L1 (LINE-1) and Alu insertions. *Human Heredity* 62: 30-46
20. KW Selcer, LM Nespoli, TR Rainwater, AG Finger, DA Ray, SG Platt, PN Smith, LD Densmore and ST McMurry (2006) Development of an enzyme-linked immunosorbent assay for vitellogenin of Morelet's crocodile (*Crocodylus moreletii*). *Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology* 143(1): 50-58.
 19. LR McAliley, RE Willis, DA Ray, PS White and LD Densmore (2006) Are crocodiles really monophyletic?: Evidence for subdivisions from sequence and morphological data. *Molecular Phylogenetics and Evolution* 39:16-32
 18. J Wang, L Song, MK Gonder, S Azrak, DA Ray, MA Batzer, SA Tishkoff and P Liang (2006) Whole genome computational comparative genomics: a fruitful approach for ascertaining Alu insertion polymorphisms. *Gene* 365:11-20.
 17. DA Ray, DJ Hedges, SW Herke, JD Fowlkes, EW Barnes, DK Lavie, LM Goodwin and MA Batzer (2005) Chompy: An infestation of MITE-like repetitive elements in the crocodilian genome. *Gene* 362:1-10.
 16. DA Ray and MA Batzer (2005) Tracking Alu evolution in New World primates. *BMC Evolutionary Biology*. 5:51.
 15. DA Ray*, JA Walker*, A Hall, B Llewellyn, J Ballantyne, AT Christian, K Turteltaub and MA Batzer. (2005) Inference of human geographic origins using Alu insertion polymorphisms. *Forensic Science International*. 153:117-124. * These authors contributed equally to this work.
 14. J Xing, H Wang, K Han, DA Ray, CH Huang, LG Chemnick, C-B Stewart, T Disotell, OA Ryder and MA Batzer (2005) A mobile element based phylogeny of Old World monkeys. *Molecular Phylogenetics and Evolution* 37:872-880.
 13. A-H Salem, DA Ray, DJ Hedges, J Jurka and MA Batzer (2005) Analysis of the human Alu Ye lineage. *BMC Evolutionary Biology*. 5:18.
 12. HJ Ho, DA Ray, A-H Salem, JS Myers and MA Batzer. (2005) Straightening out the LINES: LINE-1 element orthologous loci. *Genomics*. 85: 201-207.
 11. DA Ray, J Xing, DJ Hedges, MA Hall, ME Laborde, BA Anders, BR White, N Stoilova, JD Fowlkes, KE Landry, LG Chemnick, OA Ryder and MA Batzer (2005) Alu insertion loci and platyrrhine primate phylogeny. *Molecular Phylogenetics and Evolution* 35(1): 117-126.
 10. A-H Salem, DA Ray, M.A Batzer (2005) Identity by descent and DNA sequence variation of human SINE and LINE elements. *Cytogenetic and Genome Research* 108: 63-72.
 9. AC Otieno, AB Carter, DJ Hedges, JA Walker, DA Ray, RK Garber, BA Anders, N Stoilova, ME Laborde, JD Fowlkes, CH Huang, B Perodeau and MA Batzer (2004) Analysis of the human Alu Ya-lineage. *Journal of Molecular Biology* 342: 109-118
 8. DA Ray, JA Dever, SG Platt, TR. Rainwater, AG Finger, ST McMurry, MA Batzer, B Barr, PJ Stafford, J McKnight and LD Densmore (2004) Low levels of nucleotide diversity in *Crocodylus moreletii* and evidence of hybridization with *C. acutus*. *Conservation Genetics* 5(4): 449-462.
 7. Z Gonzalez, DA Ray, LR McAliley, MJ Gray, C Perchellet, LM Smith and LD Densmore (2004) Five polymorphic microsatellite loci for the Great Plains Toad, *Bufo cognatus*. *Molecular Ecology Notes* 4(1): 9-10.
 6. A-H Salem*, DA Ray*, J Xing, PA Callinan, JS Myers, DJ Hedges, RK Garber, DJ Witherspoon, LB Jorde and MA Batzer (2003) Alu elements and hominid phylogenetics. *Proceedings of the National Academy of Sciences of the U. S. A.* 100(22): 12787-12791. * These authors contributed equally to this work.

5. PJ Stafford, ST McMurry, TR Rainwater, DA Ray, LD Densmore and B Barr (2003) Morelet's crocodile (*Crocodylus moreletii*) in the Macal River watershed, Maya Mountains, Belize. Herpetological Bulletin 85: 15-23.
4. DA Ray and LD Densmore (2003) Repetitive sequences in the crocodilian mitochondrial control region: Poly-A sequences and heteroplasmic tandem repeats. Molecular Biology and Evolution 20(6): 1006-1013.
3. DA Ray and LD Densmore (2002) The crocodilian control region: General structure, conserved sequences and evolutionary implications. Journal of Experimental Zoology (Molecular Development and Evolution) 294: 334-345.
2. DA Ray, PS White, H Duong, T Cullen and LD Densmore (2001) High levels of variation in the African Dwarf Crocodile (*Osteolaemus tetraspis*) In: Crocodilian Biology and Evolution (G Grigg, F Seebacher and C Franklin, eds). pp. 58-69. Surrey Beatty and Sons, Chipping Norton.
1. LD Densmore and DA Ray (2001) Genetic markers as tools for management of captive crocodilian populations. In "Memoria Primer Seminario Taller: Capacitacion y Actualizacion en el Manejo Sostenible de Cocodrilos en Panama" pp. 136-150. Asociacon Panamena de Manejadores y Especialistas de Crocodylia, Panama, Republica de Panama. (English version: pp. 205-214).

PUBLICATIONS (OTHER)

1. DA Ray, K Han, JA Walker and MA Batzer (2010) Laboratory methods for the analysis of primate mobile elements. Pp 153-179 in "Genetic Variation: Methods and Protocols (Methods in Molecular Biology)", MR Barnes and G Breen (Eds.), Humana Press Inc., Totowa, NJ.

PRESENTATIONS (D. RAY AS MAIN PRESENTER)

1. DA Ray, MW Vandewege, RN Platt, A Szeliga, DMerriman, FG Hoffmann⁴, *TEs and PIWIs: The piRNA response is relaxed in a rodent lacking mobilizing transposable elements*, Keystone Symposium: Mobile Genetic Elements and Genome Plasticity, Santa Fe, NM, February 14, 2018. Poster Presentation
2. DA Ray, *Studies of Genome Evolution in Non-Traditional Model Organisms*, Pennsylvania State University, State College, PA, November 8, 2017. Invited Seminar.
3. DA Ray, *Conflicting Evolutionary Histories of Mitochondrial and Nuclear Genomes in New World Myotis*, Society for the Study of Molecular Biology and Evolution, Austin, TX, July 4, 2017. Poster Presentation.
4. DA Ray, RN Platt, C Caio, *Transposable Element Evolution in Chiropterans*, Mobile DNA in Mammalian Genomes, Big Sky, Montana, June 19, 2017. Oral Presentation
5. DA Ray, RN Platt II, BC Faircloth, KAM Sullivan, T Kieran, TC Glenn, MW Vandewege, TE Lee, RJ Baker, RD Stevens, *Conflicting Evolutionary Histories of Mitochondrial and Nuclear Genomes in New World Myotis*, 5th International Berlin Bat Meeting, Berlin, Germany, February 24, 2017. Oral Presentation.
6. DA Ray, *Transposable Elements Contribute Lineage-Specific miRNAs to Vesper Bat Genomes*, North American Symposium for Bat Research, San Antonio, TX, October 14, 2016. Oral Presentation.
7. DA Ray. *Genomics, Transposable Elements and Non-Traditional Model Organisms*, University of Central Oklahoma, Edmond, OK, September 29, 2016. Invited Seminar.
8. DA Ray. *Differential Transposable Element Evolution in Vesper and Non-Vesper Bats*. Ecology, Evolution and Behavior Seminar, Lubbock, TX, October 22, 2015. Invited Presentation.

9. DA Ray. *TEs, small RNAs and non-model mammals*. Mobile DNA in Mammalian Genomes, West Palm Beach, FL, June 17, 2015. Invited Presentation.
10. DA Ray. *The Role of Transposable Elements in Mammalian Genome Evolution*, American Society of Mammalogists, Jacksonville, FL, June 13, 2015. Invited Presentation.
11. DA Ray. *Small RNA-Transposable Element Interactions in Animal Genome Evolution*, Plant and Animal Genome XXIII, San Diego, CA, January 10, 2015. Invited Presentation.
12. DA Ray. *Genomics, Transposable Elements and Non-Model Organisms*, The Institute for Environmental and Human Health, Texas Tech University, Lubbock, TX, November 17, 2014. Invited Presentation.
13. DA Ray. *Tick-tock Goes the Croc: Three Genome Drafts Indicate Slow Molecular Evolution in Crocodylians and Provide Insight into Archosaur Evolution*. *Evolution* 2014, June 22, 2014. Raleigh, NC. Oral Presentation.
14. DA Ray. *The Genomes of Three Crocodylians Provide Insight into Archosaur Evolution*. 23rd Working Meeting of the Crocodile Specialist Group, Lake Charles, LA, May 30, 2014. Invited Presentation.
15. DA Ray. *Transposable Element Annotation*. Genomics of Non-Model Organisms course, Mississippi State University, Mississippi State MS, March 2014. Guest Lecture.
16. DA Ray. *Introduction to Genomics*. Introduction to Cellular and Molecular Biology course, Texas Tech University, Lubbock TX, September 2013. Guest Lecture.
17. DA Ray. *Transposable Element Analyses in Non-Model Animals*. Mobile DNA in Mammalian Genomes, Big Sky MT, June 2013. Invited Presentation.
18. DA Ray. *Genome Analyses in Non-Traditional Model Animals*. Texas Tech University, Lubbock, TX, April 2013. Invited Presentation.
19. DA Ray. *Genomic Analyses in Non-Traditional Model Animals*. Rutgers University, Piscataway, NJ, March 2013. Invited Presentation.
20. DA Ray. *Transposable Element Analyses in Non-Model Animals*. 63rd Fujihara Seminar 2012, A New Horizon of Retroposon Research. Kyoto, Japan, July/August 2012. Invited Presentation.
21. DA Ray. *Repeat discovery in Crocodiles and Alligators*. 4th International Workshop on Crocodylian Genetics and Genomics, Darwin NT, Australia, May 2012. Invited Presentation.
22. DA Ray. *How and Why We will have Three Crocodylian Genome Sequences*. 4th International Workshop on Crocodylian Genetics and Genomics, Darwin NT, Australia, May 2012. Invited Presentation.
23. DA Ray. *Identifying TE Diversity in Non-Model Mammals*. FASEB Summer Research Conference, Mobile DNA in Mammalian Genomes, Snowmass Village, CO, August 2011. Invited Presentation.
24. DA Ray. *Transposable Element Biology and Genomics at "the other" MSU*. Michigan State University, East Lansing, MI, October 2010. Invited Presentation.
25. DA Ray, HJT Pagan, JD Smith, P Novak, J Macas. *Transposable Element Landscape Characterization in Five Bat Genomes Using 454 Sequence Data*. Biology of Genomes, Cold Spring Harbor, NY, May 2010. Poster Presentation.
26. DA Ray. *Mobile Element Approaches to Biology and Genomics*. Guest lecturer, BCH 4113, Mississippi State University, Mississippi State, MS, June 2010.
27. DA Ray. *Mobile Element Approaches to Biology and Genomics*. University of South Carolina, Columbia, SC, March 2010. Invited Presentation.
28. DA Ray. *Mobile Element Approaches to Biology and Genomics*. Mississippi State University, Mississippi State, MS, August 2009. Invited Presentation.
29. DA Ray, C Feschotte, HJT Pagan, JD Smith, E Pritham, P Arensburger, PW Atkinson, NL Craig. *Multiple Waves of Recent DNA Transposon Activity in the Bat, Myotis lucifugus*. Plant and Animal Genomes XVII, San Diego, CA, January 2009. Invited Presentation.

30. DA Ray. *Mobile Element Approaches to Biology and Genomics*. Mississippi State University, Mississippi State, MS, December 2008. Invited Presentation.
31. DA Ray. *M-Es, Myself, and I: Mobile Element Approaches to Biology and Genomics*. Texas Tech University, Lubbock, TX, October 2008. Invited Presentation.
32. DA Ray. *Mobile Element Analyses in "the Other" Extant Archosaurs*. Delivering Value from Avian Genomes, Mississippi State University, Mississippi State, MS, May 2008. Invited Presentation.
33. DA Ray, JD Smith. *DNA Transposons and Other Mobile Elements in the Anolis Genome*. Anolis Community Meeting, Broad Institute, Boston, MA, March 2008. Invited Presentation.
34. DA Ray, C Feschotte, HJT Pagan, JD Smith, E Pritham, P Arensburger, PW Atkinson, NL Craig. *Waves of Recent DNA Transposon Activity in the Bat, Myotis lucifugus*. Mid-Atlantic Transposon Meeting, Bethesda, MD, December 2007. Invited Presentation.
35. DA Ray, C Feschotte, HJT Pagan, JD Smith, E Pritham, P Arensburger, PW Atkinson, NL Craig. *Successive Waves of DNA Transposon Activity in the Genome of the Bat, Myotis lucifugus*. Transposable Elements in Mammalian Genomes, Tucson, AZ, June 2007. Invited Presentation.
36. DA Ray, C Feschotte, HJT Pagan, JD Smith, E Pritham, P Arensburger, PW Atkinson, NL Craig. *Not as Extinct as We Thought: Recent DNA Transposon Activity has Shaped the Genome of the Bat, Myotis lucifugus*. Transposable Elements in Mammalian Genomes, Tucson, AZ, June 2007. Poster Presentation.
37. DA Ray. *DNA Sequencing Technology*. Guest lecturer, Bio 314, West Virginia University. May 2007.
38. DA Ray. *Crocodylian Biology and Evolution*. Guest lecturer, Bio 493X, West Virginia University. May 2007.
39. DA Ray. *Mobile Elements as Genetic Markers*. Guest lecturer, Bio 493Z, West Virginia University. November 2006.
40. DA Ray. *Mobile Elements as Forensic Tools*. Guest lecturer, Bio 436, West Virginia University. March 2006.
41. DA Ray. *Crocodylian Biology and Evolution*. Guest lecturer, Bio 493X, West Virginia University. March 2006.
42. DA Ray. *SINEs of Progress: Mobile Element Applications for Biological Questions*. Purdue University, West Lafayette, IN. March 2006. Invited Presentation.
43. DA Ray. *SINEs of Progress: Mobile Element Applications for Biological Questions*. University of Pittsburgh, Pittsburgh, PA. February 2006. Invited Presentation.
44. DA Ray, DJ Hedges, SW Herke, JD Fowlkes, EW Barnes, DK LaVie, LM Goodwin, M.A. Batzer. *Chompy: An Infestation of MITE-like Repetitive Elements in the Crocodylian Genome*. Plant and Animal Genome XIV, San Diego, CA. January 2006. Invited Presentation.
45. DA Ray. *Mobile Element Applications for Conservation Biology*. Second International Symposium of Conservation Genetics, Monterey, CA. September 2005. Invited Presentation.
46. DA Ray, JA Walker, MA Batzer. *Mobile Element Applications for Biological Questions and the Examination of Human Genetic Variation*. LSU Health Sciences Center, New Orleans, LA. April 2005. Invited Presentation.
47. DA Ray, JA Walker, MA Batzer. *Mobile Elements: Novel Genetic Systems for Forensic Genomics*. Plant and Animal Genome XIII, San Diego, CA. January 2005. Invited Presentation.
48. DA Ray, JA Walker, A Hall, B Llewellyn, J Ballantyne, AT Christian, K Turteltaub and MA Batzer. *Inference of Human Geographic Origins Using Alu Element Insertion Polymorphisms*. Fifteenth International Symposium on Human Identification, Phoenix, AZ. October 2004. Poster Presentation.
49. DA Ray, J Xing, DJ Hedges, MA Hall, ME Laborde, BA Anders, BR White, N Stoilova, JD Fowlkes, KE Landry, LG Chemnick, OA Ryder, MA Batzer. *Platyrrhine Phylogenetics as Revealed by*

- Mobile Element Insertions*. Genomes and Evolution 2004, State College, PA, June, 2004. Oral Presentation.
50. DA Ray, AH Salem, J Xing, DJ Hedges, MA Hall, ME Laborde, BA Anders, BR White, N Stoilova, JD Fowlkes, KE Landry, LG Chemnick, OA Ryder, MA Batzer. *Mobile Elements and Primate Phylogenetics*. AAAS 85th Annual meeting, Logan, UT. June 2004. Oral Presentation.
 51. DA Ray. *Genome Instability* - Guest lecturer, Human Molecular Genetics (BIOL 4800) Louisiana State University. March 2004.
 52. DA Ray, JA Walker, MA Batzer. *Using Structure 2.0 to Infer Geographic Origin in Unknown Samples: Procedural Aspects*. Technical Support Working Group meeting, National Institute of Justice, Washington, D.C.. November 2003. Oral Presentation.
 53. DA Ray, J Xing, DJ Hedges, MA Hall, ME Laborde, BA Anders, BR White, N Stoilova, JD Fowlkes, KE Landry, LG Chemnick, OA Ryder, MA Batzer. *Identification of Recently Integrated Alu Elements from New World Monkey Genomes*. 68th Cold Spring Harbor Symposium on Quantitative Biology, Cold Spring Harbor, NY, May 2003. Poster Presentation.
 54. DA Ray, J Xing, DJ Hedges, MA Hall, ME Laborde, BA Anders, BR White, N Stoilova, JD Fowlkes, KE Landry, LG Chemnick, OA Ryder, MA Batzer. *Identification of Recently Integrated Alu Elements from New World Monkey Genomes*. XIX International Congress of Genetics, Melbourne, Australia. July 2003. Poster Presentation.
 55. DA Ray, MA Batzer. *LINE elements: a new source of genomic variation for DNA profiling*. Third Annual DNA Grantees' Workshop. U. S. Department of Justice, Washington, D.C. June 2003. Oral Presentation.
 56. DA Ray, LD Densmore. *The Crocodylian Control Region: General Structure, Heteroplasmy, and Repeat Units*. The 2nd International Crocodylian DNA Workshop, San Diego, CA. November 2001. Oral Presentation.
 57. DA Ray, JA Dever, SG Platt, TR Rainwater, AG Finger, ST McMurry, MA Batzer, B Barr, PJ Stafford, J McKnight, LD Densmore. *Low Levels of Nucleotide Diversity in Crocodylus moreletii and Evidence of Hybridization with C. acutus*. TTUAB Graduate Forum, Texas Tech University. April 2002. Oral Presentation.
 58. DA Ray, SG Platt, T Rainwater, TC Glenn, LD Densmore. *An Initial Genetic Survey of the Furrowed Wood Turtle (Rhinoclemmys areolata) in Belize*. Annual meeting of the Society for the Study of Reptiles and Amphibians (SSAR), Indianapolis, IN, July 2001. Oral Presentation.
 59. DA Ray, SG Platt, T Rainwater, TC Glenn, LD Densmore. *An Initial Genetic Survey of the Furrowed Wood Turtle (Rhinoclemmys areolata) in Belize*. TTUAB Graduate Forum, Texas Tech University. April 2001. Oral Presentation.
 60. DA Ray, LD Densmore. *Osteolaemus tetraspis: One species or two?*, Joint Annual Herpetological Meetings SSAR and ASIH, Pennsylvania State University, June 1999. Poster Presentation.
 61. DA Ray, LD Densmore. *Osteolaemus tetraspis: One species or two?*, TTUAB Graduate Forum, Texas Tech University. April 1999. Oral Presentation.

PRESENTATIONS (OTHERS AS MAIN PRESENTER, PRESENTER UNDERLINED)

1. Brittain, K, E Jones, A Osmanski, D Ray, A Suh, and J Gongora. Evolution of type I interferon and receptor genes in crocodylians. Society for Molecular Biology and Evolution, Yokohama, Japan, July 8, 2018. Poster Presentation.
2. Stuhler, J, M Halsey, R Bradley, N Platt, D Ray, R Stevens. *The influence of abiotic and biotic characteristics on rodent community dynamics across the geographic range of a rare kangaroo rat*. Annual Meeting of the American Society of Mammalogists, Manhattan, KS, June 28, 2018. Oral Presentation.

3. Halsey, MK, JD Stuhler, RN Platt II, NJ Bayona-Vazquez, RD Bradley, DA Ray, RD Stevens. *Spatially explicit genetic analysis is essential for guiding management decisions of a threatened kangaroo rat*. Annual Meeting of the American Society of Mammalogists, Manhattan, KS, June 29, 2018. Oral Presentation.
4. Garcia, CJ, RW Perry, DA Ray, RD Stevens. *Roost characteristics of Myotis septentrionalis in the Kisatchie National Forest, Louisiana*. Annual Meeting of the American Society of Mammalogists, Manhattan, KS, June 28, 2018. Oral Presentation.
5. Osmanski, AB, RN Platt II, LD Densmore II, J Gongora, DA Ray, *Novel method for transposable element annotation across multiple taxa*. 9th Texas Tech Annual Biological Sciences Symposium, Lubbock, TX, April 7, 2018. Oral Presentation.
6. Korstian, JM, RN Platt II, DA Ray, *Transposable elements and lineage sorting within the genus Myotis*, 9th Texas Tech Annual Biological Sciences Symposium, Lubbock, TX, April 7, 2018. Oral Presentation.
7. Stuhler, JD, MK Halsey, DA Ray, RD Bradley, RN Platt, RD Stevens, *An evaluation of abiotic and biotic habitat characteristics potentially affecting the current distribution and abundance of a rare kangaroo rat*, 9th Texas Tech Annual Biological Sciences Symposium, Lubbock, TX, April 7, 2018. Oral Presentation.
8. Paulat, NS, J Korstian, RN Platt, DA Ray, *Making a Myotis: Connecting transposons and mutations in bats*. 9th Texas Tech Annual Biological Sciences Symposium, Lubbock, TX, April 7, 2018. Oral Presentation.
9. Halsey, MK, JD Stuhler, RN Platt II, TC Glenn, RD Bradley, DA Ray, RD Stevens, *Spatially explicit genetic analysis is essential for guiding management decisions of a threatened kangaroo rat*, 9th Texas Tech Annual Biological Sciences Symposium, Lubbock, TX, April 7, 2018. Oral Presentation.
10. Blanco-Berdugo, L. RN Platt, DA Ray, *Incomplete lineage sorting of the transposable element AfroSINE in the family Elephantidae*, 9th Texas Tech Annual Biological Sciences Symposium, Lubbock, TX, April 7, 2018. Oral Presentation.
11. Mills, MN, TJ Soniat, M Halsey, RD Stevens, DA Ray, RD Bradley, *A Genetic Assessment of Pocket Gophers of the Genus Geomys (Rodentia: Geomyidae) in Texas*, 9th Texas Tech Annual Biological Sciences Symposium, Lubbock, TX, April 6, 2018. Poster Presentation.
12. Nguyen, Z, N. Paulat, DA Ray, *Bats: Who's Related to Whom*, 9th Texas Tech Annual Biological Sciences Symposium, Lubbock, TX, April 6, 2018. Poster Presentation.
13. Ghosh, A, RN Platt, MW Vandewege, S Isberg, DG Peterson, C-Y Hsu, JW Finger, J Gongora, TC Glenn, T Kieran, R Tabassum and DA Ray, *Impact of small RNA on transposable elements in the salt water crocodile: Crocodylus porosus*, Keystone Symposium: Mobile Genetic Elements and Genome Plasticity, Santa Fe, NM, February 12, 2018. Oral Presentation
14. Osmanski, AB, RN Platt II, LD Densmore III, DA Ray, *Novel Method for Transposable Element Annotation Across Multiple Taxa*, Keystone Symposium: Mobile Genetic Elements and Genome Plasticity, Santa Fe, NM, February 14, 2018. Poster Presentation.
15. Paulat, NS, DA Ray, RN Platt II, J Korstian, *DNA Transposon Activity and Mutation Rates in Myotis Genes*, Keystone Symposium: Mobile Genetic Elements and Genome Plasticity, Santa Fe, NM, February 14, 2018. Poster Presentation.
16. Blanco-Berdugo, L, RN Platt II, DA Ray, *Accurate annotation of Transposable Elements Patterns in Callorhinchus milii (Australian ghostshark)*, Keystone Symposium: Mobile Genetic Elements and Genome Plasticity, Santa Fe, NM, February 12, 2018. Poster Presentation.
17. Paulat, NS, DA Ray. *Mutation rates associated with DNA transposons in Myotis*. Society for Molecular Biology and Evolution, Austin, TX, July 3, 2017. Poster Presentation.
18. Korstian, J, RN Platt II, DA Ray. *Transposable elements and lineage sorting within the genus Myotis*. Society for Molecular Biology and Evolution, Austin, TX, July 3, 2017. Poster Presentation.

19. Ghosh, A, RN Platt II, MW Vandewege, DA Ray, S Isberg, DG Peterson, C Hsu, JW Finger, J Gongora, T Glenn, T Kieran, R Tabassum. *Gene annotation and identification of microRNAs (miRNAs) in the salt water crocodile: Crocodylus porosus*. Society for Molecular Biology and Evolution, Austin, TX, July 3, 2017. Poster Presentation.
20. Sullivan, KAM, DA Ray, RN Platt II, RD Bradley. *Retrotransposons elucidate paraphyly within the genus Peromyscus*. Society for Molecular Biology and Evolution, Austin, TX, July 3, 2017. Poster Presentation.
21. Halsey, M, L Blanco-Berdugo, N Paulat, RN Platt II, DA Ray. *Steps to the phylogenetic resolution of species-rich genera: A clear SINE*. Society for Molecular Biology and Evolution, Austin, TX, July 3, 2017. Poster Presentation.
22. Blanco-Berdugo, L, RN Platt II, DA Ray. *Accurate transposable element patterns and accumulation in Callorhinchus milii*. Society for Molecular Biology and Evolution, Austin, TX, July 3, 2017. Poster Presentation.
23. Vandewege, M, RN Platt II, A Szeliga, DA Ray, FG Hoffmann. *piRNA diversity and abundance is dependent on transposable element dynamics in mammals*. Society for Molecular Biology and Evolution, Austin, TX, July 3, 2017. Poster Presentation.
24. Platt II, RN, B Faircloth, KAM Sullivan, RD Stevens, TE Lee, DA Ray. *Conflicting evolutionary histories of the mitochondrial and nuclear genomes in the New World Myotis*, Society for Molecular Biology and Evolution, Austin, TX, 4 July 4, 2017. Poster Presentation.
25. BAT1K Consortium. *BAT1K: An initiative to sequence genomes from all extant bat species*, American Society of Mammalogists. Moscow, ID, June 23, 2017. Oral Presentation.
26. Halsey, MK, JD Stuhler, LD Boswell, CJ Garcia, RS Pfau, RN Platt II, RD Bradley, RD Stevens and DA Ray, *Old marker, new tricks: Sequencing cytochrome-b to investigate metapopulation dynamics of kangaroo rats in Texas*, American Society of Mammalogists, Moscow, ID, June 23, 2017. Oral Presentation.
27. Stuhler, JD, MK Halsey, RD Bradley, RN Platt, DA Ray and RD Stevens, *Abiotic and biotic habitat characteristics shape the current distribution of a rare kangaroo rat*, American Society of Mammalogists, Moscow, ID, June 22, 2017. Oral Presentation.
28. Platt II, RN, BC Faircloth, KAM Sullivan, T Kieran, TC Glenn, MW Vandewege, TE Lee, RJ Baker, RD Stevens, DA Ray, *Conflicting Evolutionary Histories of Mitochondrial and Nuclear Genomes in New World Myotis*, American Society of Mammalogists, Moscow, ID, June 22, 2017. Oral Presentation.
29. Halsey, MK, LA Blanco-Berdugo, NS Paulat, RN Platt II, RD Stevens and DA Ray, *Steps to the phylogenetic resolution of species-rich genera*, Texas Tech 8th Annual Biological Sciences Symposium, Lubbock, TX, April 8, 2017. Oral Presentation.
30. Stuhler, J, MK Halsey, RD Bradley, RN Platt, DA Ray and RD Stevens, *Patterns of rodent species co-*
31. *occurrence on roads versus field habitats*, Texas Tech 8th Annual Biological Sciences Symposium, Lubbock, TX, April 8, 2017. Oral Presentation.
32. Paulat, NS, DA Ray, *DNA transposon activity and associated mutation rates in Myotis bats*, Texas Tech 8th Annual Biological Sciences Symposium, Lubbock, TX, April 7, 2017. Poster Presentation.
33. Sullivan, K, B Faircloth, RN Platt II, T Kieran, T Glenn, TE Lee, RJ Baker, RD Stevens, DA Ray, *Phylogenomics of New World Myotis*, Texas Society of Mammalogists, Junction, TX, February 12, 2017. Oral Presentation.
34. Lindsey, JL, RN Platt, CD Phillips, DA Ray, RD Bradley, *The lineage diversification of Peromyscus: evidence from a transcriptomic dataset*, Texas Society of Mammalogists, Junction, TX, February 12, 2017. Oral Presentation.
35. Paulat, N, DA Ray, *DNA Transposon Activity and Mutation Rates in Myotis*, Texas Society of

- Mammalogists, Junction, TX, February 12, 2017. Poster Presentation.
36. Halsey, MK, JC Stuhler, LD Boswell, CJ Garcia, RN Platt II, RD Bradley, RD Stevens, DA Ray, *Old Marker, New Tricks: Sequencing cytochrome-b to investigate metapopulation dynamics of kangaroo rats in North-Central Texas*, Texas Society of Mammalogists, Junction, TX, February 12, 2017. Oral Presentation.
 37. Sotero-Caio, C, et al. *Genomes, chromosomes and transposable elements: A study of the genome architecture of two phyllostomid bats*, North American Symposium for Bat Research, San Antonio, TX, October 14, 2016. Oral Presentation.
 38. Platt, RN, et al. *Incomplete lineage sorting results in conflict between the nuclear and mitochondrial phylogenies of Myotis*, North American Symposium for Bat Research, San Antonio, TX, October 14, 2016. Oral Presentation.
 39. Osmanski, A. RN Platt, DA Ray, LD Densmore. *Novel method for transposable element annotation across multiple taxa*. Evolution. Austin, TX, June 18, 2016. Poster Presentation.
 40. Platt, RN, L Irber, CT Brown, C Sotero-Caio, J Hanson, C Phillips, FG Hoffmann, L McGuire, RD Stevens, CJ Garcia, DA Ray. *Hybrid assembly of the *Desmodus rodundus* (common vampire bat) and *Macrotus californicus* (California leaf-nosed bat) genomes*. Evolution. Austin, TX, June 20, 2016. Poster Presentation.
 41. Platt, RN, L Blanco-Berdugo, DA Ray. *Accurate transposable element annotation is vital when analyzing new genome assemblies*. Evolution. Austin, TX, June 19, 2016. Oral Presentation.
 42. Platt, RN, B Faircloth, KAM Sullivan, TC Glenn, R Kieran, RD Stevens, RJ Baker, DA Ray. *Resolution of New World *Myotis* using phylogenomic methods produces novel topologies*. Evolution. Austin, TX, June 18, 2016. Oral Presentation.
 43. Sotero-Caio, C, RN Platt, DA Ray, M Volleth, F Yang, R Baker. *Chromosomal reorganization and evolution in phyllostomid bats*. Evolution. Austin, TX, June 18, 2016. Oral Presentation.
 44. MW Vandewege, RN Platt II, DA Ray, FG Hoffmann. *Role of piRNAs in the absence of active transposable elements*. Sequencing Finishing and Analysis in the Future. Santa Fe, NM, June 2, 2016. Poster Presentation.
 45. L Blanco-Berdugo, RN Platt, DA Ray. *Transposable element annotation using de novo base repeat identification*. Texas Tech 7th Annual Biological Sciences Symposium, Lubbock, TX, April 2, 2016. Oral Presentation.
 46. LL Lindsey, RN Platt, CD Phillips, DA Ray, RD Bradley. *Addressing the adaptive radiation in *Peromyscus* using transcriptome data*. Texas Tech 7th Annual Biological Sciences Symposium, Lubbock, TX, April 2, 2016. Oral Presentation.
 47. AB Osmanski, RN Platt II, DA Ray. *Novel method for transposable element annotation across multiple taxa*. Texas Tech 7th Annual Biological Sciences Symposium, Lubbock, TX, April 2, 2016. Oral Presentation.
 48. KAM Sullivan, RN Platt, RD Bradley, DA Ray. *A phylogenetic analysis of fifteen rodent mitochondrial genomes*. Texas Tech 7th Annual Biological Sciences Symposium, Lubbock, TX, April 2, 2016. Oral Presentation.
 49. A Wafa, S Mangum, L Blanco-Berdugo, RN Platt II, DA Ray. *Transposon analysis in the aardvark genome*. TTU Undergraduate Research Conference. Lubbock, TX, March 31, 2016. Poster Presentation.
 50. AB Osmanski, C Caio, RN Platt, DA Ray. *Genomic structural variation within the genus *Myotis**. Texas Society of Mammalogists, Junction, TX, February 12, 2016. Poster Presentation
 51. KAM Sullivan, RN Platt, RD Bradley, DA Ray. *A phylogenetic analysis of fifteen rodent mitochondrial genomes*. Texas Society of Mammalogists, Junction, TX, February 13, 2016. Oral Presentation.
 52. S Mangum, RN Platt, DA Ray. *Exploring LINE retrotransposon activity in sciurids using a novel*

- phylogenomic method*. Texas Society of Mammalogists, Junction, TX, February 13, 2016. Oral Presentation.
53. L. Blanco-Berdugo, RN Platt, DA Ray. *Transposable element annotation using de novo base repeat identification*. Texas Society of Mammalogists, Junction, TX, February 13, 2016. Oral Presentation.
 54. LL Lindsey, RN Platt, CD Phillips, DA Ray, RD Bradley. *Addressing the adaptive radiation in Peromyscus using transcriptome data*. Texas Society of Mammalogists, Junction, TX, February 13, 2016. Oral Presentation.
 55. RN Platt II, Y Zhang, DJ Witherspoon, J Xing, A Suh, MS Keith, LB Jorde, RD Stevens, DA Ray. *Targeted capture of phylogenetically-informative Ves SINE insertions in genus Myotis*. Mobile DNA in Mammalian Genomes, West Palm Beach, FL, June 17, 2015. Poster Presentation.
 56. S Mangum, RN Platt, DA Ray. *Understanding LINE retrotransposon activity in sciurids using a novel phylogenetic method*. Mobile DNA in Mammalian Genomes, West Palm Beach, FL, June 17, 2015. Poster Presentation.
 57. KAM Sullivan, RN Platt, RD Bradley, DA Ray. *Elucidation of SINE subfamilies in Peromyscus maniculatus*. Mobile DNA in Mammalian Genomes, West Palm Beach, FL, June 17, 2015. Poster Presentation.
 58. RN Platt, DA Ray. *De novo identification of transposable elements recovers lineage-specific transposable element families*. American Society of Mammalogists, Jacksonville, FL, June 2015. Poster Presentation.
 59. RN Platt, DA Ray. *Understanding genome evolution in non-model taxa is negatively affected by homology based transposable element identification*. Sequencing Finishing and Analysis in the Future, Santa Fe, NM, May 2015. Poster Presentation.
 60. S Mangum, RN Platt, DA Ray. *Understanding LINE retrotransposon activity in sciurids using a novel phylogenetic method*. 6th Annual Texas Tech Biological Sciences Symposium, Lubbock, TX, April 2015. Oral Presentation.
 61. KAM Sullivan, RN Platt, RD Bradley, DA Ray. *Elucidation of SINE subfamilies in Peromyscus maniculatus*. 6th Annual Texas Tech Biological Sciences Symposium, Lubbock, TX, April 2015. Oral Presentation.
 62. WK Stubbs, DA Ray. *Transposable elements and LINE-1 activity in Peromyscus maniculatus*. Texas Society of Mammalogists, Junction, TX, February 2015. Poster Presentation.
 63. S Mangum, RN Platt, DA Ray. *Understanding LINE retrotransposon activity in sciurids using a novel phylogenetic method*. Texas Society of Mammalogists, Junction, TX, February 2015. Oral Presentation.
 64. KAM Sullivan, RN Platt, RD Bradley, DA Ray. *Elucidation of SINE subfamilies in Peromyscus maniculatus*. Texas Society of Mammalogists, Junction, TX, February 2015. Oral Presentation.
 65. RN Platt II, MW Vandewege, C Kern, C Schmidt, DA Ray, FG Hoffmann. *Large numbers of novel miRNAs originate from DNA transposon and are coincident with a large species radiation in bats*. American Society of Mammalogists, Oklahoma City, OK, June 2014. Oral Presentation.
 66. RN Platt II, MW Vandewege, C Kern, C Schmidt, DA Ray, FG Hoffmann. *DNA transposons drive miRNA origination in vesper bats*. Mississippi EPSCoR, Starkville, MS, April 2014. Poster Presentation.
 67. SF Mangum, FG Hoffmann, and DA Ray. *PIWI vs DNA transposons: Identifying PIWI homologs in vespertilionid bats*. TTABSS. Lubbock TX, March 2014. Poster Presentation.
 68. F McCarthy, EL Braun, T Gabaldon, J Gongora, R Green, C Gresham, SR Isberg, W Jaratlerdsiri, C Kern, C Moran, CJ Schmidt, D Ray. *Crocodylian Genomics: Unraveling Evolution, Development, and Traditional Medicine*. Plant and Animal Genomes XXIV, San Diego CA, January 2014. Poster Presentation.
 69. RN Platt, MW Vandewege, DA Ray, FG Hoffmann. *Characterization of Lineage Specific miRNAs from Dog and Horse Testes*. SMBE, Chicago IL, July 2013. Poster Presentation.

70. FG Hoffmann, MW Vandewege, SF Mangum, DA Ray and M Williamson. *Evolution of the Olfactory Receptors Repertoires in Archosaurs*. SMCBE, Chicago IL, July 2013. Poster Presentation.
71. C Lavoie, RN Platt, P Novick, BA Counterman, DA Ray *Transposable Element Evolution in Heliconius Suggests Substantial Genome Diversity among Lepidopterans*. SMCBE, Chicago IL, July 2013. Poster Presentation.
72. RN Platt, MW Vandewege, C Kern, CJ Schmidt, FG Hoffmann, DA Ray. *Large numbers of novel miRNAs originate from DNA transposons and are coincident with a large species radiation in bats*. SMCBE, Salt Lake City, June 2013. Oral Presentation.
73. RN Platt, MW Vandewege, C Kern, CJ Schmidt, FG Hoffmann, DA Ray. *Large numbers of novel miRNAs originate from DNA transposons and are coincident with a large species radiation in bats*. SMCBE, Chicago IL, July 2013. Poster Presentation.
74. MW Vandewege, Platt, RN, DA Ray, FG Hoffmann. *Evolutionary Dynamics of piRNA/PIWI Proteins and Transposable Elements in Two Laurasiatherians*. SMCBE, Chicago IL, July 2013. Oral Presentation.
75. MW Vandewege, Platt, RN, DA Ray, FG Hoffmann. *Variable targeting of transposable elements by piRNA/PIWI proteins in two Laurasiatherians*. Evolution, Salt Lake City UT, June 2013. Oral Presentation.
76. RN Platt, MW Vandewege, C Kern, CJ Schmidt, FG Hoffmann, DA Ray. *Large numbers of novel miRNAs originate from DNA transposons and are coincident with a large species radiation in bats*. Mobile DNA in Mammalian Genomes, Big Sky MT, June 2013. Oral Presentation.
77. K Mobley, DA Ray. *Dropping a LINE: CR1 elements are likely extinct in crocodylians*. NSF REU Mississippi State, MS, July, 2012. Poster Presentation.
78. MW Vandewege, RN Platt, DA Ray, FG Hoffmann. *piRNA isolation and characterization from horse and dog*. Mississippi EPSCoR 2012, University of Mississippi, Oxford, MS, April 2012. Poster Presentation.
79. RN Platt, S Martin, DA Ray. *Another LINE bites the dust: Massive reduction of LINE activity in Spermophilus tridecemlineatus*. MCBIOS, University of Mississippi, Oxford, MS, February 2012. Oral Presentation.
80. MP Ramakodi, DA Ray. *Codon usage bias in the mitochondrial genomes of Diptera*. MCBIOS, University of Mississippi, Oxford, MS, February 2012. Oral Presentation.
81. C Lavoie, DA Ray. *Variability of TE content in muscid fly taxa*. MCBIOS, University of Mississippi, Oxford, MS, February 2012. Poster Presentation.
82. AY Chong, S Isberg, L Melville, DA Ray, TC Glenn, J Gongora. *Exploring endogenous retroviruses in the crocodylian genome*. Genomic Impact of Eukaryotic Transposable Elements, Pacific Grove, CA, February 2012. Poster Presentation.
83. AY Chong, S Isberg, L Melville, DA Ray, TC Glenn, DG Peterson, X Shan, J Gongora. *Genome-wide identification of endogenous retroviruses from a crocodylian genome*. 4th International Workshop on Crocodylian Genetics and Genomics, Darwin NT, Australia, May 2012. Invited Presentation.
84. AY Chong, S Isberg, L Melville, DA Ray, TC Glenn, DG Peterson, X Shan, J Gongora. *Genome-wide identification of endogenous retroviruses from a crocodylian genome*. 33rd Conference of the International Society of Animal Genetics, Cairns QLD, Australia, July 2012. Invited Presentation.
85. RN Platt, DA Ray. *Recent reduction of non-LTR retrotransposons activity in the genome of the 13-lined ground squirrel, *Spermophilus tridecemlineatus**. FASEB Summer Research Conference, Mobile DNA in Mammalian Genomes, Snowmass Village, CO, August 2011. Poster Presentation.
86. RN Platt II, DA Ray. *Recent reduction of non-LTR retrotransposons activity in the genome of the 13-lined ground squirrel, *Spermophilus tridecemlineatus**. Evolution, Norman, OK, June 2011. Poster Presentation.

87. PR Meganathan, ES McColloch, RD Stevens, DA Ray. *Codon usage bias in the mitochondrial genomes of Chiroptera*. Evolution, University of Oklahoma, Norman, OK, June 2011. Poster Presentation.
88. HJT Pagán, JD Smith, RM Hubley, DA Ray. *PiggyBac-ing on a primate genome: Novel elements, recent activity and horizontal transfer*. Plant & Animal Genomes, San Diego, CA, January 2011. Invited Presentation.
89. RN Platt II, JD Smith, DA Ray. *Recognition, categorization and characterization of transposable elements in a Non-Muroid rodent: Spermophilus tridecemlineatus*. Biology of Genomes, Cold Spring Harbor, NY, May 2010. Poster Presentation.
90. JS Smith, DA Ray. *Expedited batch processing and analysis of transposon insertion sites in non-mammalian vertebrates*. Biology of Genomes, Cold Spring Harbor, NY, May 2010. Poster Presentation.
91. HJT Pagán, JD Smith, RM Hubley, DA Ray. *PiggyBac-ing on a primate genome: Novel elements, recent activity and horizontal transfer*. Biology of Genomes, Cold Spring Harbor, NY, May 2010. Poster Presentation.
92. AM Cooksey, P Chouvarine, DA Ray, B Baldwin, SC Burgess, DG Peterson. *Illumina Transcriptome Profiling of Miscanthus*. MCBIOS, Arkansas State University, Jonesboro, AR, February 2010. Poster Presentation.
93. B Counterman, DA Ray. *Identifying Repetitive Elements in Heliconius*. 2nd Annual meeting of the *Heliconius* Genome Consortium, University of Cambridge, Cambridge, UK, March, 2010. Invited Presentation.
94. RN Platt, JD Smith, DA Ray. *Recognition, Categorization and Characterization of Transposable Elements in a Non-Muroid Rodent: Spermophilus tridecemlineatus*. MCBIOS, Arkansas State University, Jonesboro, AR, February 2010. Poster Presentation.
95. JS Smith, DA Ray. *Transposable Element History of the Anolis Genus*. MCBIOS, Arkansas State University, Jonesboro, AR, February 2010. Poster Presentation
96. HJT Pagán, JD Smith, RM Hubley, DA Ray. *Lineage Specific Activity from Novel PiggyBac Elements and Evidence of Horizontal Transfer in Mouse Lemurs (Microcebus)*, MCBIOS, Arkansas State University, Jonesboro, AR, February 2010. Oral Presentation.
97. ML Thompson, DA Ray. *Identification of Chicken Repeat 1 (CR1) elements in forensically important blowfly species and characterization of one such element within Sarcophaga bullata*. Mid-Atlantic Association of Forensic Scientists. Hunt Valley MD, May 2009. Oral Presentation.
98. T Cromity, RN Platt II, DA Ray. *Determining SINE dynamics in a Diverse Group of Bats*. NSF REU Mississippi State, MS July, 2010. Poster Presentation.
99. J Okeke, DA Ray, RN Platt II. *Transposable Element Diversity in African Cichlids*. NSF REU Mississippi State, MS July, 2010. Poster Presentation.
100. J Kim, RN Platt II, DA Ray. *Comparative Genomics of Retrotransposons in Primates and Rodents*. 2010 Undergraduate Research Symposium, Mississippi State, MS, April, 2010. Poster Presentation.
101. ML Thompson, DA Ray. *CR1 Elements Present In Forensically Important Blowflies*, North American Forensic Entomology Association 6th Annual Meeting, Atlantic City, NJ, June 2008. Poster Presentation.

MEETINGS ORGANIZED

Inaugural meeting of the International Crocodylian Genomes Working Group (ICGWG) - August, 2011 – Mississippi State University

Co-organizer – FASEB Mobile DNA in Mammalian Genomes – June, 2017 – Big Sky, MT

Lead Organizer – FASEB Mobile DNA – June, 2019 – Location TBD

GRANTS

Funded:

- RoL: FELS: EAGER: Genomics of exceptions to scaling of longevity to body size – NSF, \$151,940, 9/1/2018 – 8/31/2020.
- Distribution and conservation genetics of *Myotis* and other critically imperiled bats in Louisiana – Louisiana Department of Wildlife and Fisheries, \$103,389, 1/1/2018 – 12/31/2019
- Comparing genetic diversity of the threatened northern long-eared bat across their range using whole-genome and RADSeq approaches – USDA Forest Service, \$50,000, 6/01/2016 – 12/31/2018.
- Population Status of Texas Pocket Gophers (*Geomys* and *Thomomys*) – Texas Parks and Wildlife Department, 2016-2018; \$182,906
- RFP No. 209f for Endangered Species Research Projects for the Texas Kangaroo Rat – Texas State Comptroller, 11/03/2014 – 4/31/2018; \$199,999.
- DEB-1355176: piRNA Dynamics in the Absence of Active TEs – NSF, \$148,722; 4/15/2014 – 3/31/2017.
- MCB-1052500: Completing the Crocodylian Triumvirate: A Genome Draft for the Indian Gharial – NSF, \$85,323; 2011-2013.
- Repetitive DNA Impacts on Agriculturally and Forensically Important Flies – Mississippi Agricultural and Forestry Experiment Station (Special Research Initiative); \$38,920; 2011.
- DEB-1020865: Collaborative Research: A Novel Phylogenomic Approach to Bat Phylogenetics and Morphological Evolution – NSF; \$134,861; 2010-2013.
- Repetitive DNAs and their Impact on Agriculturally and Forensically Important Oestroid Flies – Mississippi Agricultural and Forestry Experiment Station (Special Research Initiative); \$49,840; 2010.
- MCB-0841821: Genome Evolution and Mobile Element Dynamics in Crocodylia - NSF; \$748,247; 2010-2013.
- Assessing Mobile Element Activity and Genome Diversity in the Crocodylia – WV PSCoR; \$31,136; 2008-2009.
- Mobile elements in blowfly genomes: Applications for phylogenetics and forensics - WVU Faculty Senate; \$13,087; 2007-2008.
- Genomics Education Matching Funds - LI-COR; \$52,101.50; 2006-2007.
- Texas Tech University Graduate School Summer Dissertation Research Award, \$500 2001.
- Texas Tech University Association of Biologists Summer Research Award, \$500; 1999 and 2000.
- Chancellor's Fellow, Texas Tech University, \$9,000; 1997 - 2000.

AWARDS

- TEXAS TECH UNIVERSITY ASSOCIATION OF BIOLOGISTS GRANT IN AID OF RESEARCH AWARD to N Paulat (Graduate Student): *Making a Myotis: Transposable element-associated mutation rates in bats.*
- 1ST PLACE STUDENT ORAL PRESENTATION: *A phylogenetic analysis of fifteen rodent mitochondrial genomes.* Texas Tech 7th Annual Biological Sciences Symposium, Lubbock, TX, April 2, 2016. KAM Sullivan (Graduate Student) presenter.
- 2ND PLACE STUDENT ORAL PRESENTATION: *Novel method for transposable element annotation across multiple taxa.* Texas Tech 7th Annual Biological Sciences Symposium, Lubbock, TX, April 2, 2016. AB Osmani (Graduate Student) presenter.
- BEST GRADUATE STUDENT POSTER PRESENTATION: *Genomic structural variation within the genus Myotis.* Texas Society of Mammalogists, Junction, TX, February 12, 2016. AB Osmani (Graduate Student) presenter.
- TEXAS TECH UNIVERSITY ASSOCIATION OF BIOLOGISTS GRANT IN AID OF RESEARCH AWARD to S

Mangum (Graduate Student): *Exploring LINE-1 element activity in family Scuridae*.
TEXAS TECH UNIVERSITY ASSOCIATION OF BIOLOGISTS GRANT IN AID OF RESEARCH AWARD to K
Sullivan (Graduate Student): *Classification of SINE subfamilies in Peromyscus maniculatus*.
2ND PLACE STUDENT ORAL PRESENTATION: Another LINE bites the dust: Massive reduction of
LINE activity in Spermophilus tridecemlineatus, MidSouth Computational Biology and
Bioinformatics Society (MCBIOS), University of Mississippi, Oxford, MS, February 2012.
RN Platt (Graduate Student) presenter.
2011 STATE PRIDE AWARD for excelling in teaching, research and service at Mississippi State
University
2010 STATE PRIDE AWARD for excelling in teaching, research and service at Mississippi State
University
BEST STUDENT ORAL PRESENTATION: Lineage Specific Activity from Novel PiggyBac Elements
and Evidence of Horizontal Transfer in Mouse Lemurs (Microcebus), MidSouth
Computational Biology and Bioinformatics Society (MCBIOS), Arkansas State University,
Jonesboro, AR, February 2010. HJT Pagan (Graduate Student) presenter.
BEST STUDENT POSTER PRESENTATION: Recognition, Categorization and Characterization of
Transposable Elements in a Non-Muroid Rodent: Spermophilus tridecemlineatus, MCBIOS,
Arkansas State University, Jonesboro, AR, February 2010. RN Platt (Graduate Student)
presenter.

POSTDOCTORAL ADVISEES

Meganathan Ramakodi – Mississippi State University, 2010 - 2013
Roy N. Platt II – Texas Tech University, 2014 - 2017
Cibele Sotero-Caio – Texas Tech University, 2015 – 2017
Nicole Sullivan – Texas Tech University, 2018

GRADUATE STUDENT COMMITTEES

Completed:

Chair of Advisory Committee

Blanco-Berdugo, Laura – M.S. 2018 TTU – Thesis title: Exploring Transposable Elements in the
Class Chondrichthyes
Ghosh, Arnab – Ph.D. 2018 TTU – Dissertation title: Gene annotation and small RNA
characterization in the salt water crocodile: *Crocodylus porosus*
Mangum, Sarah – M.S. 2016 TTU – Thesis title: Exploration of Evolutionary Relationships and
LINE-1 Retrotransposition Accumulation/Activity within Scurids
Lavoie, Christine – M.S. 2014 MSU – Thesis title: Transposable Element Content in Non-Model
Insect Genomes
Pagan, Heidi – Ph.D. 2011, MSU – Dissertation title: A Study of Mobile DNA Content and Activity
in Non-Model Mammalian Organisms
Platt, Roy – Ph.D. 2014, MSU – Dissertation title: Using Transposable Elements to Better
Understand Evolution at the Genomic Level
Thompson, Michelle L. – M.S. 2009, WVU – Thesis title: Identification of Chicken Repeat 1 (CR1)
elements in forensically important carrion fly species and characterization of one such
element within *Sarcophaga bullata*.

Member of Advisory Committee

Balaguera-Reina, Sergio - 2017
Corley, Megan – Ph.D. 2015

Dogan, Sule - Ph.D. 2013, MSU
Grant, Kamilah – Ph.D. 2013, MSU
Koon, Brittany – M.S. 2016
Nestor, Kristin N. - M.S. 2006, WVU
Picard, Christine - Ph.D. 2010, WVU
Ripley, Jennifer L. - Ph.D. 2006, WVU
Singh, Baneshwar – Ph.D. 2011, WVU
Smith, Tiffany – M.S. 2010, WVU
Vandewege, Michael – Ph.D. 2016, MSU
Vianna, Beatriz – M.S. 2010, WVU
Willis, Ray E. - Ph.D. 2006
Young, Stephanie – Ph.D. 2011, WVU

In Progress.

Chair of Advisory Committee

Garcia, Carlos – M.S. (Richard Stevens, Co-chair)
Grimshaw, Jenna – Ph.D. (Richard Stevens, Co-chair)
Halsey, Michaela – Ph.D. (Richard Stevens, Co-chair)
Korstian, Jennifer – Ph.D.
Osmanski, Austin – Ph.D. (Llewellyn Densmore, Co-chair)
Paulat, Nicole – M.S.
Sullivan, Kevin – Ph.D.

Member of Advisory Committee

Fumagalli, Sarah – Ph.D.
Lindsay, Laramie – Ph.D.
Roberts, Emma – Ph.D.

FIELDWORK

Alligator collections in Louisiana – Collection of live alligators via hand and break-away snare capture for molecular analyses. 2015.
Bat collections in Texas and New Mexico – Collection of live bats via mist-netting and hand collection under bridges and in caves. 2014-2015.
Noxubee National Wildlife Refuge, MS – Collection of alligator blood for genomic and transcriptomic analysis. Summer, 2011 – 2012.
Belize, C. A. - Collection of crocodile tissues and blood for population genetic and toxicological analyses in L. Densmore's lab and at The Institute for Environmental and Human Health at Texas Tech University. October, 2000 and April - June, 2001.
Caddo Lake, Marshall, TX - Collection of amphibians and reptiles for differential display analysis. Various 2-3 day trips during 1999 and 2000.

VOLUNTEER ACTIVITIES

Volunteer educator for the West Virginia Raptor Rehabilitation Center, 2006 – 2009.

POPULAR PRESS

Texas Tech Researchers Look to Solve Its Pigeon Problem –

<http://www.fox34.com/story/34439655/texas-tech-researchers-look-to-solve-its-pigeon-problem>

Researchers Trying to Get a Handle on Campus Pigeon Population –

<http://today.ttu.edu/posts/2017/01/pigeon>

This Prehistoric Pocket Deer Has Fewer Chromosomes Than A Fruit Fly -

<http://io9.com/this-prehistoric-pocket-deer-has-fewer-chromosomes-than-1705706404>

Biologist Leads Group that Mapped Crocodylian Genomes –

<http://today.ttu.edu/2014/12/biologist-leads-group-that-mapped-crocodylian-genomes/>

<http://phys.org/news/2014-12-texas-tech-biologist-group-crocodylian.html>

<http://www.sciencedaily.com/releases/2014/12/141211141837.htm>

<http://esciencenews.com/articles/2014/12/11/texas.tech.biologist.leads.group.mapped.crocodylian.genomes>

Crocodyles are ‘stuck in the past’ -

<http://www.dailymail.co.uk/sciencetech/article-2870411/Crocodyles-stuck-past-Genetic-study-shows-reptiles-closely-related-birds-evolution-unusually-slow.html>

Chickens are closely related to dinosaurs, and other insights from the new bird family tree –

<http://www.theverge.com/2014/12/11/7378239/chickens-are-closely-related-to-dinosaurs-new-bird-family-tree>

New genome research illuminates bird, crocodile evolution –

<http://uanews.org/story/new-genome-research-illuminates-bird-crocodile-evolution>

Decoding the Tree of Life: UF Geneticist Contributes to Groundbreaking Study of Bird Evolution

– <http://news.ufl.edu/archive/2014/12/decoding-the-tree-of-life-uf-geneticist-contributes-to-groundbreaking-study-of-bird-evolution.html>

Science Podcast: A bird genome bonanza –

http://c778316.r16.cf2.rackcdn.com/SciencePodcast_141212.mp3

A Flock of Genomes Tells the Tale of Bird Evolution –

<http://www.latimes.com/science/sciencenow/la-sci-sn-flock-of-genomes-bird-evolution-20141210-story.html#page=1>

Scientists Reconstruct Genome of Common Ancestor of Crocodyles, Birds, Dinosaurs –

<http://news.ucsc.edu/2014/12/crocodylian-genomes.html>

LSU Researchers Apply Modern Genomic Analysis to Historic Bird Collection –

<http://phys.org/news/2014-12-lsu-modern-genomic-analysis-historic.html#nRlv>

Mapping Crocodylian Genomes –

<http://phys.org/news/2014-12-texas-tech-biologist-group-crocodylian.html>

New Family Tree Illuminates ‘Big Bang’ in Bird Evolution After Dinosaur Extinction –

<http://news.nationalgeographic.com/news/2014/12/141211-bird-crocodylian-dinosaur-genome-evolution-science/>

Tech research: Crocodylian species similar –

http://lubbockonline.com/local-news/2014-08-26/tech-research-crocodylian-species-similar#.U_8wNPMwIIA

Going batty for jumping DNA as a cause of species diversity –

http://www.eurekalert.org/pub_releases/2014-04/mbae-gbf032714.php

Ray Studies Endangered Crocodylian Species –

<http://www.msstate.edu/web/research/magazine/12researchmagazine.pdf>

MSU researcher's study leads to swamps, ‘gators’ –

<http://msucare.com/news/print/fwnews/fw12/120802gators.html>

Mapping the Genomes of Crocodiles and Alligators – It's Not for the Faint of Heart –

http://www.nsf.gov/news/special_reports/science_nation/crocodiledundee.jsp

Crocodile research hopes for better handbags -

<http://www.abc.net.au/pm/content/2012/s3504398.htm?site=darwin§ion=news>

Breeding Stronger, Healthier Crocodiles –

<http://www.abc.net.au/rural/nt/content/201205/s3504338.htm>

First Analysis of Platypus Genome May Impact Disease Prevention –

<http://esciencenews.com/articles/2008/05/07/first.analysis.platypus.genome.may.impact.disease.prevention>

WCBI – This interview and video feature was featured in a local broadcast news segment on November 5, 2010. The piece has expired on the WCBI page.