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 Chair, Dept. of Biological Sciences, Texas Tech University, September, 2022 - present.

Professor, Texas Tech University; September, 2020 – present.

Associate Professor, Texas Tech University; September, 2013 – 2020.

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,

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 (current): Department of Biological Sciences: Initiatives Committee (2022 – present), Graduate Student Stipend (2022 – present), Faculty Awards Committee (2016-present; Chair), Ad-Hoc Curriculum Committee for Genetics/Genomics (2017-present, Chair), Graduate Student Affairs Committee (2018-present)

Committees at TTU (previous): *Department of Biological Sciences*: Quantitative Biologist Faculty Search (2017-2018), Promotion and Tenure (2013-present), Mammalian Functional Genomics Faculty Search, (2014-15; Chair), Student Scholarships and Awards (2013-2015),

Microbiology/Metagenomics Faculty Search (2015-2016), Landscape Genomics Faculty Search (2016-2017; Chair), Virologist Faculty Search (2020-2021, Chair). *College of Arts and Sciences*: Blue Ribbon Committee (2015-2016) College of Arts and Sciences Committee on Academic Programs (2019-2022). *University*: IACUC (2014-2022).

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

Member of Executive Board – Bat1k (bat1k.com), 2017 – present

Member of Scientific Advisory Board – dfam (dfam.org), 2019 – present

Section Editor for Gene, 2022 - present

Associate Editor for Gene, 2013 – 2022.

Executive Editor for Analytical Biochemistry, 2018 – present

Editorial Review Boards for Mobile DNA and PeerJ.

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)

Bat awareness presentations (3)

Crocodilian awareness presentation (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, 2019, 2020)

BIOL 4301 – Genomes and Society (Spring 2017, 2018, 2020)

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)

Google Scholar: https://tinyurl.com/y6fyvwsk

h-index (2/13/2024) - 47

i-index (2/13/2024) - 97

[Journal impact factor], (Effort contribution)

- 1. EA Wright, JD Manthey, MR Buchalski, BR McKinney, DA Ray, CD Phillips, RD Bradley (Submitted) Genomic affinity following restoration of a locally extirpated species: a case study of desert bighorn sheep in Texas. Biological Conservation.
- 2. F Cicconardi, BJ Morris, J Martelossi, DA Ray, SH Montgomery (Submitted) Novel sex-specific genes and diverse interspecific expression in the antennal transcriptomes of ithomiine butterflies. Molecular Ecology.
- 3. AE Morales, Y Dong, T Brown, K Baid, DG Kontopoulos, V Gonzalez, Z Huang, A-W Ahmed, L Hilgers, S Winkler, G Hughes, X Li, B M Kirilenko, P Devanna, TM Lama, Y Nissan, M Pippel, LM Dávalos, SC Vernes, SJ Puechmaille, SJ Rossiter, Y Yossi, JB Prescott, A Kurth, DA Ray, BK Lim, E Myers, EC Teeling, A Banerjee, AT Irving, M Hiller (Submitted) Reference-quality bat genomes illuminate adaptations to viral tolerance and disease resistance. Nature.
- 4. FX Castellanos, D Moreno-Santillan, GM Hughes, NS Paulat, N Sipperly, A Brown, K Martin, GM Poterewicz, MCW Lim, AL Russell, MS Moore, M Johnson, AP Corthals, DA Ray, and LM Davalos (2023) The evolution of antimicrobial peptides in Chiroptera. Frontiers in Immunology 14:1250229. https://www.frontiersin.org/articles/10.3389/fimmu.2023.1250229.
- 5. JR Grimshaw, D Donner, R Perry, WM Ford, A Silvis, CJ Garcia, RD Stevens, DA Ray (In press) Disentangling genetic diversity of *Myotis septentrionalis*: population structure, demographic history, and effective population size. Journal of Mammalogy.
- 6. JM Korstian, RD Stevens, TE Lee Jr., RJ Baker, DA Ray (2024) Unraveling the *Myotis* morass: Ultraconserved-element analysis reveals introgression, cryptic diversity, and taxonomic trouble in the most species-rich bat genus. Journal of Mammalogy 2024;, gyad119. https://doi.org/10.1093/jmammal/gyad119
- 7. JD Stuhler, MK Halsey, JR Goetze, RD Bradley, DA Ray, RD Stevens (2023) Updated distribution of the Texas kangaroo rat (*Dipodomys elator*) and patterns of rodent species associations from county road surveys in Texas. Therya 14(2):261-268. DOI:10.12933/therya-23-2306

- 8. RD Bradley, AT Pham, KA Rich, EK Roberts, TJ Soniat, CM Poehlein, MN Mills, M Ballard, RM Pitts, LL Lindsey, MK Halsey, DA Ray, RD Stevens, DJ Schmidly and EA Wright (2023) Genetic identification of pocket gophers (Genera *Cratogeomys*, *Geomys*, and *Thomomys*) in Texas and surrounding areas. Special Publications, Museum of Texas Tech University 78 (1 November 2023):1-120.
- 9. MJ Christmas, IM Kaplow, DP Genereux, MX Dong, GM Hughes, X Li, PF Sullivan, AG Hindle, G Andrews, JC Armstrong, M Bianchi, M Diekhans, C Fanter, NM Foley, DB Goodman, L Goodman, KC Keough, B Kirilenko, A Kowalcyk, C Lawless, AL Lind, JRS Meadows, LR Moreira, RW Redlich, L Ryan, R Swofford, A Valenzuela, F Wagner, O Waterman, AR Brown, J Damas, K Fan, J Gatesy, J Grimshaw, J Johnson, SV Kozyrev AJ Lawler, VD Marinescu, KM Morrill, A Osmanski, NS Paulat, BN Phan, SK Reilly, DE Schaffer, C Steiner, MA Supple, AP Wilder, ME Wirthlin, JR Xue, Zoonomia Consortium, BW Birren, S Gaza RM Hubley, K-P Koepflii, T Marques-Bonet, WK Meyer, M Nweeia PC Sabeli B Shapiro, AFA Smit, MS Springer, EC Teeling, Z Wang, M Hiller, DL Levesque, HA Lewin, WJ Murphy, A Navarro, B Paten, KS Pollard, DA Ray, I Ruf, OA Ryder, AR Pfenning, K Lindblad-Toh, EK Karlsson (2023) Evolutionary constraint and innovation across hundreds of placental mammals. Science 380, eabn3943 https://doi.org/10.1101/2023.03.09.531574
- 10. AB Osmanski, NS Paulat, JM Korstian, JR Grimshaw, M Halsey, KAM Sullivan, DD Moreno-Santillan, C Crookshanks, J Roberts, CJ Garcia, LM Davalos, MG Johnson, LD Densmore, RD Stevens, Zoonomia Consortium, J Rosen, JM Storer, R. Hubley, AFA Smit, DA Ray. (2023) Insights into mammalian TE diversity through the curation of 248 genome assemblies. Science 380, eabn1430. https://doi.org/10.1126/science.abn1430
- 11. NS Paulat, JM Storer, DD Moreno-Santillan, AB Osmanski, KAM Sullivan, JR Grimshaw, J Korstian, M Halsey, CJ Garcia, C Crookshanks, J Roberts, AFA Smit, R Hubley, J Rosen, EC Teeling, SC Vernes, E Myers, Zoonomia Consortium, D Rojas, LM Davalos, DA Ray (2023) Chiropterans are a hotspot for horizontal transfer of DNA transposons in Mammalia. Molecular Biology and Evolution 40:5 (msad092). https://doi.org/10.1093/molbev/msad092
- 12. D Sandip, SB Kingan, C Kitsou, DM Portik, SD Foor, JC Frederick, VS Rana, NS Paulat, DA Ray, Y Wang, TC Glenn, and U Pal. (2023) A high-quality *Ixodes scapularis* genome advances tick science. Nature Genetics 55:301-333. https://doi.org/10.1038/s41588-022-01275-w
- 13. AP Dorador, M Dalikova, S Cerbin, C Stillman, M Zych, RC Hawley, DE Miller, DA Ray, SY Funikov, MB Evven'ev, and JP Blumenstiel (2022) Paramutation-like epigenetic conversion by piRNA at the telomere of *Drosophila virilis*. Biology 2022 11(10):1480. https://www.mdpi.com/2079-7737/11/10/1480/htm
- 14. NS Paulat, E McGuire, K Subramanian, AB Osmanski, DD Moreno-Santillan, DA Ray, J Xing (2022) Transposable elements in bats show differential accumulation patterns determined by class and functionality. Life 2022, 12(8):1190. https://doi.org/10.3390/life12081190
- EE Stukenholz, TA Hailu, S Childers, C Leatherwood, L Evans, D Roulain, D Townsley, M Treider, RN Platt II, SR Fritts, DA Ray, JC Zak, RD Stevens (2022) A pigeon's eye view of a university campus. The Southwestern Naturalist. 66(1):13-14. https://doi.org/10.1894/0038-4909-66.1.13
- 16. CJ Garcia, DA Ray, RW Perry, RD Stevens (2023) Seasonal differences in day-roost selection of Northern long-eared bats (*Myotis septentrionalis*) in Louisiana and a meta-analytical comparison across North America. Forest Ecology and Management 530:120749. https://doi.org/10.1016/j.foreco.2022.120749
- 17. L Doronina, GM Hughes, D Moreno-Santillan, C Lawless, T Lonergan, L. Ryan, D Jebb, BM Kirilenko, JM Korstian, LM Davalos, SC Vernes, EW Myers, EC Teeling, M Hiller, LS Jermin J

- Schmitz, MS Springer, DA Ray. (2022) Contradictory phylogenetic signals in the Laurasiatheria anomaly zone. Genes 13(5):766. Cover article. https://doi.org/10.3390/genes13050766
- 18. MK Halsey, JD Stuhler, NJ Bayona-Vasquez, RN Platt II, JR Goetze, RE Martin, KG Matocha, RD Bradley, RD Stevens, DA Ray. (2022) Comparison of genetic variation between rare and common congeners of *Dipodomys* with estimates of contemporary and historical effective population size. PLoS ONE 17(9):e0274554. https://doi.org/10.1371/journal.pone.0274554
- 19. JM Korstian, NS Paulat, RN Platt II, RD Stevens, DA Ray (2022) SINE-based phylogenomics reveal extensive introgression and incomplete lineage sorting in *Myotis*. Genes 2022, 13, 399. https://doi.org/10.3390/genes13030399.
- 20. MW Vandewege, RN Platt II, DK Merriman, DA Ray, FG Hoffmann. (2022) The PIWI/piRNA response is relaxed in a rodent that lacks mobilizing transposable elements. RNA 28:609-621. https://doi.org/10.1261/rna.078862.121
- 21. JR Grimshaw, JD Manthey, NS Paulat, RD Stevens, and DA Ray (2022) Landscape level patterns of genetic diversity of bat species of greatest conservation need in Louisiana. Occasional Papers of the Museum of Texas Tech University. 380:1-12.
- 22. J Gutierrez, RN Platt II, JC Opazo, DA Ray, FG Hoffmann, MW Vandewege. (2021) Evolutionary history of the vertebrate Piwi gene family. PeerJ 9:e12451. http://doi.org/10.7717/peerj.12451
- 23. JR Grimshaw, DA Ray, and RD Stevens. (2021) Ecological niche models for bat species of greatest conservation need in Louisiana. Occasional Papers of the Museum of Texas Tech University. 378:1-15.
- 24. DD Moreno-Santillán, TM Lama, YT Guttierez Guerrero, AM Brown, P Donat, H Zhao, SJ Rossiter, LR Yohe, JH Potter, EC Teeling, SC Vernes, K Davies, E Myers, GM Hughes, Z Huang, FG Hoffmann, AP Corthals, DA Ray, and LM Davalos. (2021) Large -scale genome sampling reveals unique immunity and metabolic adaptations in bats. Molecular Ecology 30(23):6449-6467. https://doi.org/10.1111/mec.16027
- 25. MK Halsey, JD Stuhler, RN Platt II, RD Bradley, RD Stevens, and DA Ray. (2021) Cheeky Business: Comparing DNA yield of buccal, whisker, and fecal samples for minimally invasive genetic research. Occasional Papers of the Museum of Texas Tech University. 374:March 30,2021.
- 26. D Jebb, Z Huang, M Pippel, M Hughes, K Lavrichenko, P Devanna, S Winkler, LS Jermiin, EC Skirmuntt, A Katzourakis, L Burkitt-Gray, DA Ray, KAM Sullivan, JG Roscito, BM Kirilenko, LM Dávalos, AP Corthals, ML Power, G Jones, RD Ransome, D Dechmann, AG Locatelli, SJ Puechmaille, O Fedrigo, ED Jarvis, M Hiller, SC Vernes, EW Myers, C Teeling (2020) Six reference-quality genomes reveal evolution of bat adaptations. Nature 583:578-584. [43.070] (5%) Cover article.
- 27. A Ghosh, RN Platt II, MW Vandewege, R Tabassum, C-Y Hsu, SR Isberg, DG Peterson, JW Finger, TJ Kieran, TC Glenn, J Gongora, and DA Ray (2020) Identification and characterization of microRNAs (miRNAs) and their transposable element origins in the saltwater crocodile, *Crocodylus porosus*. Analytical Biochemistry 602:113781. [2.877] (20%)
- 28. DP Genereux, A Serres, J Armstrong, J Johnson, VD Marinescu, E Murén, D Juan, G Bejerano, NR Casewell, LG Chemnick, J Damas, F Di Palma, M Diekhans, IT Fiddes, M Garber, VN Gladyshev, L Goodman, W Haerty, ML Houck, R Hubley, T Kivioja, K-P Koepfli, LFK Kuderna, ES Lander, JRS Meadows, WJ Murphy, W Nash, HJ Noh, M Nweeia, AR Pfenning, KS Pollard, D Ray, B Shapiro, A Smit, Mark Springer, CC Steiner, R Swofford, J Taipale, EC Teeling, J Turner-Maier, J Alfoldi, B Birren, OA Ryder, H Lewin, B Paten, T Marques-Bonet, K

- Lindblad-Toh, and EK Karlsson (2020) A comparative genomics multitool for scientific discovery and conservation. Nature 587:240-245. [43.070] (5%)
- 29. LL Lindsey, RN Platt II, CD Phillips, DA Ray, and RD Bradley (2020) Differential expression in testis and liver transcriptomes from four species of *Peromyscus* (Rodentia: Cricetidae). Genome Biology and Evolution 12(1):3698-3709. [3.726] (10%)
- 30. S Louha, DA Ray, K Winker, TC Glenn (2020) A high-quality genome assembly of the North American Song Sparrow, *Melospiza melodia*. G3: Genes, Genomes, Genetics **10(4):1159-1166**. [2.742] (10%)
- 31. A Ghosh, MG Johnson, AB Osmanski, TC Glenn, S Louha, NJ Bayona-Vasquez, J Gongora, RE Green S Isberg, RD Stevens, and DA Ray (2020) A high-quality reference genome assembly of the saltwater crocodile, *Crocodylus porosus*, reveals patterns of selection in Crocodylidae. Genome Biology and Evolution 12(1):3635-3646. [3.726] (10%)
- 32. DA Ray, N Paulat, W An, S Boissinot, R Cordaux, T Kaul, B Freeman, V Belancio (2019) The 2019 FASEB Science Research Conference on The Mobile DNA Conference: 25 Years of Discussion and Research, June 23–28, Palm Springs, California, USA. The FASEB Journal 33 (11), 11625-1162.
- 33. M Volleth, S Muller, FA Anwarali Khan, H-S Yong, K-G Heller, RJ Baker, DA Ray, and CG Sotero-Caio (2019) Cytogenetic investigations in Emballonuroidea. I. Taphozoinae and Emallonurinae karyotypes evolve at different rates and share no derived chromosomal characters. Acta Chiropterologica 21(2):257-269. [1.569] (2%)
- 34. EE Stukenholtz, TA Hailu, S Childers, C Leatherwood, L Evans, D Roulain, D Townsley, M Treider, RN Platt II, DA Ray, JC Zak, and RD Stevens (2019) Ecology of Feral Pigeons: Population Monitoring, Resource Selection, and Management Practices, Wildlife Population Monitoring, Marco Ferretti, IntechOpen, DOI: 10.5772/intechopen.84612.
- 35. DA Ray, JR Grimshaw, MK Halsey, JM Korstian, AB Osmanski, KAM Sullivan, KA Wolf, H Reddy, N Foley, RD Stevens, B Knisbacher, O Levy, B Counterman, NB Edelman, and J Mallet (2019) Simultaneous TE Analysis of 19 Heliconiine Butterflies Yields Novel Insights into Rapid TE-Based Genome Diversification and Multiple SINE Births and Deaths. Genome Biology and Evolution 11(8):2162–2177. [3.726] (90%)
- 36. L Doronina, O Reising, H Clawson, D Ray, and J Schmitz (2019) True homoplasy of retrotransposon insertions in primates. Systematic Biology 68(3):482-493. [10.266] (5%)
- 37. 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. [5.200] (10%)
- 38. RN Platt II, MW Vandewege, and DA Ray (2018) Mammalian transposable elements and their impacts on genome evolution. Chromosome Research 26:25-43. [2.183] (10%)
- 39. RN Platt II, BC Faircloth, KAM Sullivan, T Kieran, TC Glenn, MW Vandewege, TE Lee, RJ Baker, RD Stevens, and DA Ray (2018) Conflicting evolutionary histories of the mitochondrial and nuclear genomes in New World Myotis. Systematic Biology 67:236-249. [10.266] (10%)
- 40. 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. (20%)
- 41. 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. [10.101] (5%)

- 42. 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. [3.726] (20%)
- 43. 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. [3.730] (5%)
- 44. RN Platt II, S Mangum, and DA Ray (2016) Pinpointing the vesper bat transposon revolution using the *Miniopterus natalensis* genome. Mobile DNA 7:12. [4.405] (20%)
- 45. 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. [3.726] (20%)
- 46. 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. [3.726] (5%)
- 47. 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. [3.726] (30%)
- 48. 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. (50%)
- 49. RN Platt II, 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. [3.726] (20%)
- 50. DA Ray, HJT Pagan, RN Platt II, AR Kroll, S Schaack and RD Stevens (2015) Differential SINE evolution in vesper and non-vesper bats. Mobile DNA 6:10. [4.405] (90%)
- 51. 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. [3.327] (50%)
- 52. 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. [3.726] (5%)
- 53. 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 crocodilian genomes. Retrovirology 11:71. [3.744] (5%)
- 54. 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. [5.540] (5%)
- 55. 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 crocodilian genomes reveal ancestral patterns of evolution among archosaurs. Science 346: 1254449. [41.04] (60%)
- 56. 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. [41.04] (2%)
- 57. 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. [2.776] (5%)
- 58. 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 Derryberry, 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 Jønsson, 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. [41.04] (2%)
- 59. 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). [1.119] (5%)
- 60. 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. [14.797] (30%)
- 61. 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. [9.58] (10%)
- 62. 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. [10.101] (10%)
- 63. 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. [11.880] (10%)
- 64. The Heliconius Genome Consortium (2012) Genomic evidence for promiscuous exchange of adaptations among Heliconius butterfly species. Nature 487:94-98. [41.577] (5%)
- 65. RN Platt and DA Ray (2012) A non-LTR retroelement extinction in *Spermophilus tridecemlineatus*. Gene 500:47-53. [2.319] (30%)
- 66. 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. [3.726] (20%)
- 67. 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. [4.460] (20%)
- 68. 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 crocodilian genomes to illuminate the evolution of archosaurs and amniotes. Genome Biology 13:415. [13.124] (60%)
- 69. 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. [2.776] (30%)
- 70. 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. [11.880] (20%)
- 71. JD Smith and DA Ray (2011) Expedited batch processing and analysis of transposon insertions. BMC Research Notes 4:482. (40%)
- 72. 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. [41.577] (10%)
- 73. 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. [13.124] (5%)
- 74. 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. [2.319] (30%)

- 75. 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. [2.319] (10%)
- 76. DA Ray and MA Batzer (2011) Reading TE leaves: New approaches to the identification of transposable element insertions. Genome Research 21:813-820. [10.101] (70%)
- 77. 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. [3.726] (25%)
- 78. 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. [4.018] (35%)
- 79. 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. [3.726] (40%)
- 80. 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. [2.319] (10%)
- 81. DA Ray, RN Platt and MA Batzer (2009) Reading between the LINEs to see into the past. Trends in Genetics 25(11):475-479. [10.627] (40%)
- 82. 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. [2.319] (25%)
- 83. 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. [3.730] (20%)
- 84. 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. [10.101] (90%)
- 85. WC Warren, et al. (86 co-authors) (2008) Genome analysis of the platypus reveals unique signatures of evolution. Nature 453:175-183. [41.577] (5%)
- 86. 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. [5.714] (5%)
- 87. J Xing, DJ Witherspoon, DA Ray, MA Batzer and LB Jorde (2007) Mobile elements and primate evolution. Yearbook of Physical Anthropology 50:2-19. [2.824] (30%)
- 88. 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. [2.319] (25%)
- 89. 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. [41.577] (2%)
- 90. 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. [3.027] (5%)
- 91. 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. [14.797] (90%)
- 92. 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. [2.319] (10%)

- 93. DA Ray*, JA Walker* and MA Batzer (2007) Mobile element-based forensics. Mutation Research 616: 24-33. * These authors contributed equally to this work. [3.680] (50%)
- 94. DA Ray (2007) SINEs of progress: Mobile element applications for molecular ecology. Molecular Ecology 16: 19-33. [6.131] (100%)
- 95. DA Ray, J Xing, A-H Salem and MA Batzer (2006) SINEs of a nearly perfect character. Systematic Biology 55(6): 928-935. [10.266] (90%)
- 96. 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. [0.542] (10%)
- 97. 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. [2.697] (2%)
- 98. 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 [4.018] (20%)
- 99. 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. [2.319] (5%)
- 100. 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. [2.319] (95%)
- 101. DA Ray and MA Batzer (2005) Tracking Alu evolution in New World primates. BMC Evolutionary Biology 5:51. [3.027] (95%)
- 102. DA Ray*, JA Walker*, A Hall, B Llewellyn, J Ballantyne, AT Christian, K Turtletaub 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. [1.947] (50%)
- 103. 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. [4.018] (20%)
- 104. 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. [3.027] (20%)
- 105. 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. [3.327] (50%)
- 106. 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. [4.018] (95%)
- 107. 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. [1.561] (50%)
- 108. 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 [4.894] (5%)
- 109. 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. [2.040] (90%)
- 110. 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. [7.059] (40%)
- 111. 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. [9.58] (50%)
- 112. 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. [0.21] (10%)
- 113. 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. [14.797] (95%)
- 114. 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. [1.716] (95%)
- 115. 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. (95%)
- 116. 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). (50%)

PUBLICATIONS (OTHER)

- 1. K Brittain, DA Ray, J Gongora (2020) Crocodilian Genome Advances. Pp. 185-202 in "Conservation Genetics of New World Crocodilians", RB Zucoloto, RS Amavet, LM Verdade, and IP Farias (Eds.), Springer Nature, Switzerland.
- 2. <u>DA Ray</u>, 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. [11.880] (80%)

PRESENTATIONS (D. RAY AS MAIN PRESENTER)

- 1. DA Ray, What is genomics and why should I care? My Field for Dummies, GBatNet, November 8, 2023, Invited Virtual Presentation. https://www.youtube.com/watch?v=mv7A7kcBp2M
- 2. DA Ray, Transposable elements: The basis of bats' evolutionary success? NASBR/IRBC 2022, Austin TX, August 8, 2022, Invited Presentation.
- 3. DA Ray, *More insights into mammalian TE diversity and phylogenomics*, Mobile DNA 2022: Evolution, Diversity, and Impact, Malahide, Ireland, June 7, 2022, Invited Presentation
- 4. DA Ray, *TE diversity in mammal genomes*, 2nd International Meeting of the Portuguese Society of Genetics 2021, Virtual, July 2, 2021. Invited Presentation.
- 5. DA Ray, TE diversity in mammal genomes, Mobile DNA 2021, Virtual, June 8, 2021. Invited Presentation.

- 6. DA Ray, TE-induced mutations and defense in two non-model mammals, International Congress on Transposable Elements, Saint-Malo, France, November 10, 2020. Invited Talk.
- 7. DA Ray, Moving Around in Mammal Genomes: Transposable Element Impacts in Eutherians, Indiana University—Purdue University Indianapolis (IUPUI), Indianapolis, IN, October 2, 2020. Invited Talk.
- 8. DA Ray, J Korstian, J Grimshaw N Paulat, A Osmanski, D Moreno-Santillan, K Sullivan, C Garcia, and M Halsey, *TE Curation in 200+ Mammals*, 4th Uppsala Transposon Symposium, Uppsala, Sweden, September 30, 2020. Oral Presentation.
- 9. DA Ray, *Those Other Guys: Adventures in the Genomes of a Bunch of Animals*, Mobile DNA 2019, Rancho Mirage, CA, June 24, 2019. Invited Presentation
- 10. DA Ray, Those Other Guys: Adventures in the Genomes of Non-Traditional Model Organisms, Carnegie Science Institute, Baltimore, MD, November 5, 2018. Invited Seminar.
- 11. DA Ray, AB Osmanski, K Brittain, E Jones, C Rui, A Suh, and J Gongora, *Genome sequencing of the complete Order Crocodylia to investigate patterns of evolution*, 2018 G10K Annual Meeting, New York, NY, September 13, 2018. Poster Presentation
- 12. DA Ray, MW Vandewege, RN Platt, A Szeliga, DMerriman, FG Hoffmann, 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
- 13. DA Ray, *Studies of Genome Evolution in Non-Traditional Model Organisms*, Pennsylvania State University, State College, PA, November 8, 2017. Invited Seminar.
- 14. 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.
- 15. DA Ray, RN Platt, C Caio, *Transposable Element Evolution in Chiropterans*, Mobile DNA in Mammalian Genomes, Big Sky, Montana, June 19, 2017. Invited Presentation
- 16. 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.
- 17. 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.
- 18. DA Ray. Genomics, Transposable Elements and Non-Traditional Model Organisms, University of Central Oklahoma, Edmond, OK, September 29, 2016. Invited Seminar.
- 19. DA Ray. Differential Transposable Element Evolution in Vesper and Non-Vesper Bats. Ecology, Evolution and Behavior Seminar, Lubbock, TX, October 22, 2015. Invited Presentation.
- 20. DA Ray. TEs, small RNAs and non-model mammals. Mobile DNA in Mammalian Genomes, West Palm Beach, FL, June 17, 2015. Invited Presentation.
- 21. DA Ray. *The Role of Transposable Elements in Mammalian Genome Evolution*, American Society of Mammalogists, Jacksonville, FL, June 13, 2015. Invited Presentation.
- 22. DA Ray. Small RNA-Transposable Element Interactions in Animal Genome Evolution, Plant and Animal Genome XXIII, San Diego, CA, January 10, 2015. Invited Presentation.
- 23. DA Ray. Tick-tock Goes the Croc: Three Genome Drafts Indicate Slow Molecular Evolution in Crocodilians and Provide Insight into Archosaur Evolution. Evolution 2014, June 22, 2014. Raleigh, NC. Oral Presentation.
- 24. DA Ray. *The Genomes of Three Crocodilians Provide Insight into Archosaur Evolution*. 23rd Working Meeting of the Crocodile Specialist Group, Lake Charles, LA, May 30, 2014. Invited Presentation.

- 25. DA Ray. *Transposable Element Annotation*. Genomics of Non-Model Organisms course, Mississippi State University, Mississippi State MS, March 2014. Guest Lecture.
- 26. DA Ray. Transposable Element Analyses in Non-Model Animals. Mobile DNA in Mammalian Genomes, Big Sky MT, June 2013. Invited Presentation.
- 27. DA Ray. Genome Analyses in Non-Traditional Model Animals. Texas Tech University, Lubbock, TX, April 2013. Invited Presentation.
- 28. DA Ray. Genomic Analyses in Non-Traditional Model Animals. Rutgers University, Piscataway, NJ, March 2013. Invited Presentation.
- 29. 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.
- 30. DA Ray. Repeat discovery in Crocodiles and Alligators. 4th International Workshop on Crocodylian Genetics and Genomics, Darwin NT, Australia, May 2012. Invited Presentation.
- 31. DA Ray. How and Why We will have Three Crocodilian Genome Sequences. 4th International Workshop on Crocodylian Genetics and Genomics, Darwin NT, Australia, May 2012. Invited Presentation.
- 32. 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.
- 33. DA Ray. Transposable Element Biology and Genomics at "the other" MSU. Michigan State University, East Lansing, MI, October 2010. Invited Presentation.
- 34. 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.
- 35. DA Ray. Mobile Element Approaches to Biology and Genomics. Guest lecturer, BCH 4113, Mississippi State University, Mississippi State, MS, June 2010.
- 36. DA Ray. *Mobile Element Approaches to Biology and Genomics*. University of South Carolina, Columbia, SC, March 2010. Invited Presentation.
- 37. DA Ray. Mobile Element Approaches to Biology and Genomics. Mississippi State University, Mississippi State, MS, August 2009. Invited Presentation.
- 38. 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.*
- 39. DA Ray. Mobile Element Approaches to Biology and Genomics. Mississippi State University, Mississippi State, MS, December 2008. Invited Presentation.
- 40. 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.
- 41. 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.
- 42. 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.*
- 43. 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.
- 44. 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.
- 45. DA Ray. DNA Sequencing Technology. Guest lecturer, Bio 314, West Virginia University. May 2007.

- 46. DA Ray. Crocodilian Biology and Evolution. Guest lecturer, Bio 493X, West Virginia University. May 2007.
- 47. DA Ray. *Mobile Elements as Genetic Markers*. Guest lecturer, Bio 493Z, West Virginia University. November 2006.
- 48. DA Ray. *Mobile Elements as Forensic Tools*. Guest lecturer, Bio 436, West Virginia University. March 2006.
- 49. DA Ray. Crocodilian Biology and Evolution. Guest lecturer, Bio 493X, West Virginia University. March 2006.
- 50. DA Ray. SINEs of Progress: Mobile Element Applications for Biological Questions. Purdue University, West Lafavette, IN. March 2006. Invited Presentation.
- 51. DA Ray. SINEs of Progress: Mobile Element Applications for Biological Questions. University of Pittsburgh, Pittsburgh, PA. February 2006. Invited Presentation.
- 52. 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 Crocodilian Genome*. Plant and Animal Genome XIV, San Diego, CA. January 2006. Invited Presentation.
- 53. DA Ray. *Mobile Element Applications for Conservation Biology*. Second International Symposium of Conservation Genetics, Monterey, CA. September 2005. Invited Presentation.
- 54. 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.
- 55. 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.
- 56. DA Ray, JA Walker, A Hall, B Llewellyn, J Ballantyne, AT Christian, K Turtletaub 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.
- 57. DA Ray, J Xing, DJ Hedges, MA Hall, ME Laborde, BAAnders, 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.
- 58. DA Ray, AH Salem, J Xing, DJ Hedges, MA Hall, ME Laborde, BAAnders, 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.
- 59. DA Ray. *Genome Instability* Guest lecturer, Human Molecular Genetics (BIOL 4800) Louisiana State University. March 2004.
- 60. 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.
- 61. DA Ray, J Xing, DJ Hedges, MA Hall, ME Laborde, BAAnders, 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.
- 62. DA Ray, J Xing, DJ Hedges, MA Hall, ME Laborde, BAAnders, 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.

- 63. DA Ray, MA Batzer. <u>LINE elements: a new source of genomic variation for DNA profiling</u>. Third Annual DNA Grantees' Workshop. U. S. Department of Justice, Washington, D.C. June 2003. Oral Presentation.
- 64. DA Ray, LD Densmore. *The Crocodilian Control Region: General Structure, Heteroplasmy, and Repeat Units.* The 2nd International Crocodilian DNA Workshop, San Diego, CA. November 2001. Oral Presentation.
- 65. 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.
- 66. 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.
- 67. 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.
- 68. DA Ray, LD Densmore. Osteolaemus tetraspis: *One species or two?*, Joint Annual Herpetological Meetings SSAR and ASIH, Pennsylvania State University, June 1999. Poster Presentation.
- 69. 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. Paulat, N, *Chiropterans are a hotspot for horizontal transfer of DNA transposons in Mammalia*. NASBR/IRBC 2022, Austin TX, August 8, 2022, Oral Presentation.
- 2. Castallanos, F, Moreno-Santillan, D, T Lama, L Davalos, A Corthals, DA Ray. *DeAMPlifying the immune response: Antimicrobial peptide evolution in Chiroptera*. NASBR/IRBC 2022, Austin TX, August 9, 2022, Poster Presentation.
- 3. Vaca-Puente, S, R Hubley, AFA Smit, DA Ray, RAM evaluation of a Carollia genome. NASBR/IRBC 2022, Austin TX, August 9, 2022, Poster Presentation.
- 4. Paulat, N, Chiropterans are a hotspot for horizontal transfer of DNA transposons in Mammalia. Mobile DNA 2022: Evolution, Diversity, and Impact, Malahide, Ireland, June 7, 2022. Oral Presentation.
- 5. Moreno-Santillan, D, T Lama, L Davalos, A Corthals, DA Ray. *Bats and their unique immunity and metabolic adaptations*. Evolution 2021, June 21, 2021. Oral Presentation.
- 6. Moreno-Santillan, D, T Lama, L Davalos, A Corthals, DA Ray. What omics can tell us about bat immunity. April 28, 2021. Invited Talk.
- 7. <u>Paulat, N</u>, JD Manthey, RN Platt II, EC Teeling, LM Davalos, SC Vernes S Winkler, M Hiller, EW Myers, DA Ray. *Transposable element activity and mutational impacts in* Myotis. Biodiversity Genomics 2020. October 7, 2020. Oral Presentation.
- 8. <u>Grimshaw, JR</u>, D Donner, PE Marquadt, RW Perry, RD Stevens, DA Ray. *Genetic diversity of the threatened Northern long-eared bat (*Myotis septentrionalis). Biodiversity Genomics 2020. October 7, 2020. Oral Presentation.
- 9. Osmanski, AB, DA Ray. *Transposable element curation in 200+ mammals*. Broad Institute virtual seminar, May 17, 2020. Oral Presentation.
- 10. <u>Halsey, MK</u>, LL Lindsay, TJ Soniat, RD Stevens, RD Bradley, DA Ray. *Phylogenetic placement and population genetics of Thomomys* bottae *subspecies in Texas and Southeastern New Mexico using single nucleotide polymorphisms*. Texas Society of Mammalogists, Junction, TX, February 22, 2020. Oral Presentation.

- 11. <u>Osmanski, AB, J Korstian, K Sullivan, J Grimshaw, M Halsey, N Paulat, D Moreno-Santillan C Garcia, DA Ray. Transposable element evaluation across Mammalia.</u> Texas Society of Mammalogists, Junction, TX, February 22, 2020. Oral Presentation.
- 12. <u>Paulat, NS</u>, JD Manthey, RN Platt II, DA Ray. *Transposon activity and associated mutations in Myotis bats*. Texas Society of Mammalogists, Junction, TX, February 21, 2020. Poster Presentation.
- 13. <u>Grimshaw, JR</u>, DA Ray, RD Stevens. *Genetic diversity of* Myotis septentrionalis. Texas Society of Mammalogists, Junction, TX, February 21, 2020. Poster Presentation.
- 14. Osmanski, AB, A Ghosh, MG Johnson, S Louha, NJ Bayona-Vásquez, TC Glenn, J Gongora, RE Green, S Isberg, RD Stevens, DA Ray. *Genomic Signatures of Selection Detection Across the Order Crocodylia*. The Society for Integrative and Comparative Biology, Austin, TX, January 5, 2020. Oral Presentation.
- 15. <u>Paulat, NS</u>, JD Manthey, RN Platt II, DA Ray. *Transposon Activity and Mutational Impacts in* Myotis. The Society for Integrative and Comparative Biology, Austin, TX, January 6, 2020. Poster Presentation.
- 16. Halsey, MK, JD Stuhler, RD Bradley, RD Stevens, DA Ray. *Temporal and spatial genetic assessment of a natural metapopulation.* The Society for Integrative and Comparative Biology, Austin, TX, January 6, 2020. Oral Presentation.
- 17. <u>Paulat, NS</u>, JD Manthey, RN Platt II, DA Ray. *Transposon Activity and Mutational Impacts in Myotis*. Mobile DNA 2019: 25 Years of Discussion and Research, Palm Springs, CA, June 26, 2019. Oral Presentation.
- 18. <u>Grimshaw, JR</u>, DA Ray, RD Stevens. *Macroecology of the Butterfly Genome*. Mobile DNA 2019: 25 Years of Discussion and Research, Palm Springs, CA, June 26, 2019. Oral/Poster Presentation.
- 19. Sullivan, K, DA Ray. Exploring Dynamics of TEs and Genes in Bats. Mobile DNA 2019: 25 Years of Discussion and Research, Palm Springs, CA, June 26, 2019. Poster Presentation.
- 20. Osmanski, AB, K Brittain, E Jones, J Gongora, A Suh, DA Ray. *Ancient Hybridization Detection within* Crocodylus. Texas Tech Annual Biological Sciences Symposium, Lubbock, TX, April 27, 2019. Oral Presentation.
- 21. <u>Korstian, JM</u>, DA Ray. *Transposable Elements and Lineage Sorting within the Genus* Heliconius. Texas Tech Annual Biological Sciences Symposium, Lubbock, TX, April 27, 2019. Oral Presentation.
- 22. <u>Sullivan, KAM</u>, E Teeling, S Vernes, L Davalos, T Gilbert, G Myers, M Hiller, DA Ray. Examining Transposable Element Contributions to Bat Diversity and Extended Aging Phenotypes. Texas Tech Annual Biological Sciences Symposium, Lubbock, TX, April 27, 2019. Oral Presentation.
- 23. <u>Paulat, NS</u>, JD Manthey, RN Platt II, DA Ray. *Transposon Activity and Mutational Impacts in Myotis*. Texas Tech Annual Biological Sciences Symposium, Lubbock, TX, April 27, 2019. Oral Presentation.
- 24. <u>Grimshaw, JR</u>, DA Ray, and RD Stevens. *Macroecology of Butterfly Genomes*. Texas Tech Annual Biological Sciences Symposium, Lubbock, TX, April 27, 2019. Oral Presentation.
- 25. <u>Garcia, CJ</u>, RW Perry, DA Ray, and RD Stevens. *Seasonal Roost Site Characteristics of* Myotis septentrionalis *in the Kisatchie National Forest, Louisiana*. Texas Society of Mammalogists, Junction, TX, February 9, 2019. Oral Presentation.
- 26. <u>Grimshaw, JR</u>, DA Ray, and RD Stevens. *Macroecology of the Genome*. Texas Society of Mammalogists, Junction, TX, February 9, 2019. Oral Presentation.
- 27. <u>Sullivan, KAM</u>, R Teeling, S Vernes, L Davalos, T Gilbert, G Myers, M Hiller, and DA Ray *Examining Transposable Element Contributions To Bat Diversity And Extended Aging Phenotypes.* Texas Society of Mammalogists, Junction, TX, February 9, 2019. Oral Presentation.
- 28. <u>Paulat, NS, J Korstian, RN Platt II, and DA. Ray. Making A Myotis: Connecting Transposons and Mutations in Bats.</u> Texas Society of Mammalogists, Junction, TX, February 8, 2019. Poster Presentation.

- 29. <u>Lindsey, LL</u>, RN Platt, CD Phillips, DA Ray, and RD Bradley. *A Phylogenomic Approach To Examining Relationships Within* Peromyscus. Texas Society of Mammalogists, Junction, TX, February 8, 2019. Poster Presentation.
- 30. <u>Halsey, M, J Stuhler, R Bradley, R Stevens, and D Ray. Opportunistic sampling, model-based clustering, and least-cost path analysis aid in identification of connectivity corridors in the Texas Rolling Plains. Society for Integrative and Comparative Biology. Tampa, FL, January 4, 2019. Poster Presentation.</u>
- 31. <u>Brittain, K,</u> E Jones, A Osmanski, D Ray, A Suh, and J Gongora. *Evolution of type I interferon and receptor genes in crocodilians*. Society for Molecular Biology and Evolution, Yokohama, Japan, July 8, 2018. Poster Presentation.
- 32. 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.
- 33. <u>Halsey, MK</u>, 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.
- 34. <u>Garcia, CJ</u>, 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.
- 35. 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.
- 36. Korstian, JM, RN Platt II, DA Ray, *Transposable elements and lineage sorting within the genus* Myosis, 9th Texas Tech Annual Biological Sciences Symposium, Lubbock, TX, April 7, 2018. Oral Presentation.
- 37. <u>Stuhler, JD</u>, 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.
- 38. <u>Paulat, NS</u>, 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.
- 39. <u>Halsey, MK</u>, JD Stuhler, RN Platt II, TC Glenn, RD Bradley, DA Ray, RD Stevens, *Spacially 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.
- 40. <u>Blanco-Berdugo, L.</u> 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.
- 41. <u>Mills, MN</u>, 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.
- 42. 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.
- 43. <u>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</u>

- 44. 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.
- 45. <u>Paulat, NS</u>, 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.
- 46. <u>Blanco-Berdugo, L</u>, 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.
- 47. <u>Paulat, NS</u>, DA Ray. *Mutation rates associated with DNA transposons in* Myotis. Society for Molecular Biology and Evolution, Austin, TX, July 3, 2017. Poster Presentation.
- 48. 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.
- 49. <u>Ghosh, A</u>, 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.
- 50. 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.
- 51. <u>Halsey, M, L Blanco-Berdugo, N Paulat, RN Platt II, DA Ray. Steps to the phylogenetic resolution of species-rich genera: A clear SINE.</u> Society for Molecular Biology and Evolution, Austin, TX, July 3, 2017. Poster Presentation.
- 52. <u>Blanco-Berdugo, L</u>, 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.
- 53. <u>Vandewege, M</u>, 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.
- 54. 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.
- 55. BAT1K Consortium. BAT1K: An initiative to sequence genomes from all extant bat species, American Society of Mammalogists. Moscow, ID, June 23, 2017. Oral Presentation.
- 56. <u>Halsey, MK</u>, 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.
- 57. 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.
- 58. <u>Platt II, RN</u>, 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.
- 59. <u>Halsey, MK</u>, 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.

- 60. Stuhler, I, MK Halsey, RD Bradley, RN Platt, DA Ray and RD Stevens, Patterns of rodent species co-
- 61. occurrence on roads versus field habitats, Texas Tech 8th Annual Biological Sciences Symposium, Lubbock, TX, April 8, 2017. Oral Presentation.
- 62. <u>Paulat, NS</u>, 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.
- 63. <u>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.</u> Oral Presentation.
- 64. <u>Lindsey, LL</u>, 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.
- 65. <u>Paulat, N</u>, DA Ray, *DNA Transposon Activity and Mutation Rates in Myotis*, Texas Society of Mammalogists, Junction, TX, February 12, 2017. Poster Presentation.
- 66. <u>Halsey, MK</u>, 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.
- 67. 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.
- 68. <u>Platt, RN</u>, 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.
- 69. 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.
- 70. <u>Platt, RN</u>, 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.
- 71. <u>Platt, RN</u>, L Blanco-Berdugo, DA Ray. Accurate transposable element annotation is vital when analyzing new genome assemblies. Evolution. Austin, TX, June 19, 2016. Oral Presentation.
- 72. <u>Platt, RN</u>, B Faircloth, KAM Sullivan, TC Glenn, R Kieran, RD Stevens, RJ Baker, DA Ray. Resolution of New World <u>Myotis</u> using phylogenomic methods produces novel topologies. Evolution. Austin, TX, June 18, 2016. Oral Presentation.
- 73. 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.
- 74. 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.
- 75. <u>L Blanco-Berdugo</u>, 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.
- 76. <u>LL Lindsey</u>, 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.

- 77. 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.
- 78. 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.
- 79. 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.
- 80. <u>AB Osmanski</u>, C Caio, RN Platt, DA Ray. *Genomic structural variation within the genus* Myotis. Texas Society of Mammalogists, Junction, TX, February 12, 2016. Poster Presentation
- 81. 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.
- 82. <u>S Mangum</u>, 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.
- 83. <u>L Blanco-Berdugo</u>, RN Platt, DA Ray. *Transposable element annotation using de novo base repeat identification*. Texas Society of Mammalogists, Junction, TX, February 13, 2016. Oral Presentation.
- 84. <u>LL Lindsey</u>, 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.
- 85. <u>RN Platt II</u>, 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.
- 86. 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.
- 87. <u>KAM Sullivan</u>, 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.
- 88. 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.
- 89. 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.
- 90. <u>S Mangum</u>, 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.
- 91. 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.
- 92. WK Stubbs, DA Ray. *Transposable elements and LINE-1 activity in Peromyscus maniculatus*. Texas Society of Mammalogists, Junction, TX, February 2015. Poster Presentation.
- 93. 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.
- 94. 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.

- 95. 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.
- 96. 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.
- 97. SF Mangum, FG Hoffmann, and DA Ray. PIWI vs DNA transposons: Identifying PIWI homologs in vespertilionid bats. TTABSS. Lubbock TX, March 2014. Poster Presentation.
- 98. 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 GenomicsL Unraveling Evolution, Development, and Traditional Medicine.* Plant and Animal Genomes XXIV, San Diego CA, January 2014. Poster Presentation.
- 99. 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.
- 100. <u>FG Hoffmann</u>, MW Vandewege, SF Mangum, DA Ray and M Williamson. *Evolution of the Olfactory Receptors Repertoires in Archosaurs*. SMBE, Chicago IL, July 2013. Poster Presentation.
- 101. <u>C Lavoie</u>, RN Platt, P Novick, BA Counterman, DA Ray *Transposable Element Evolution in Heliconius Suggests Substantial Genome Diversity among Lepidopterans*. SMBE, Chicago IL, July 2013. Poster Presentation.
- 102. 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. SMBE,

Salt Lake City, June 2013. Oral Presentation.

- 103. 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. SMBE, Chicago IL, July 2013. Poster Presentation.
- 104. MW Vandewege, Platt, RN, DA Ray, FG Hoffmann. Evolutionary Dynamics of piRNA/PIWI Proteins and Transposable Elements in Two Laurasiatherians. SMBE, Chicago IL, July 2013. Oral Presentation.
- 105. 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.
- 106. 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.
- 107. <u>K Mobley</u>, DA Ray. *Dropping a LINE: CR1 elements are likely extinct in crocodilians.* NSF REU Mississippi State, MS, July, 2012. Poster Presentation.
- 108. 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.
- 109. 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.
- 110. MP Ramakodi, DA Ray. Codon usage bias in the mitochondrial genomes of Diptera. MCBIOS, University of Mississippi, Oxford, MS, February 2012. Oral Presentation.

- 111. <u>C Lavoie</u>, DA Ray. *Variability of TE content in muscid fly taxa*. MCBIOS, University of Mississippi,
 - Oxford, MS, February 2012. Poster Presentation.
- 112. AY Chong, S Isberg, L Melville, DA Ray, TC Glenn, J Gongora. Exploring endogenous retroviruses in the crocodilian genome. Genomic Impact of Eukaryotic Transposable Elements, Pacific Grove, CA, February 2012. Poster Presentation.
- 113. AY Chong, S Isberg, L Melville, DA Ray, TC Glenn, DG Peterson, X Shan, J Gongora. Genome-wide identification of endogenous retroviruses from a crocodilian genome. 4th International Workshop on Crocodylian Genetics and Genomics, Darwin NT, Australia, May 2012. Invited Presentation.
- 114. AY Chong, S Isberg, L Melville, DA Ray, TC Glenn, DG Peterson, X Shan, J Gongora. Genome-wide identification of endogenous retroviruses from a crocodilian genome. 33rd Conference of the International Society of Animal Genetics, Cairns WLD, Australia, July 2012. Invited Presentation.
- 115. RN Platt, DA Ray. Recent reduction of non-LTR retrotransposons activity in the genome of the 13-lined ground squirrel, <u>Spermophilus tridecemlineatus</u>. FASEB Summer Research Conference, Mobile DNA in Mammalian Genomes, Snowmass Village, CO, August 2011. Poster Presentation.
- 116. RN Platt II, DA Ray. Recent reduction of non-LTR retrotransposons activity in the genome of the 13-lined ground squirrel, <u>Spermophilus tridecemlineatus</u>. Evolution, Norman, OK, June 2011. Poster Presentation.
- 117. 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.
- 118. <u>HJT Pagán</u>, 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.
- 119. 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.
- 120. <u>JS Smith</u>, 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.
- 121. <u>HJT Pagán</u>, 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.
- 122. AM Cooksey, P Chouvarine, DA Ray, B Baldwin, SC Burgess, <u>DG Peterson</u>. *Illumina Transcriptome Profiling of* Miscanthus. MCBIOS, Arkansas State University, Jonesboro, AR, February 2010. Poster Presentation.
- 123. <u>B Counterman</u>, DA Ray. *Identifying Repetitive Elements in* Heliconius. 2nd Annual meeting of the *Heliconius* Genome Consortium, University of Cambridge, Cambridge, UK, March, 2010. Invited Presentation.
- 124. 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.
- 125. <u>JS Smith</u>, DA Ray. *Transposable Element History of the* Anolis *Genus*. MCBIOS, Arkansas State University, Jonesboro, AR, February 2010. Poster Presentation
- 126. <u>HJT Pagán</u>, 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.

- 127. 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.
- 128. 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.
- 129. <u>J Okeke</u>, DA Ray, RN Platt II. *Transposable Element Diversity in African Cichlids*. NSF REU Mississippi State, MS July, 2010. Poster Presentation.
- 130. 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.
- 131. 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

- 1. Inaugural meeting of the International Crocodilian Genomes Working Group (ICGWG) August, 2011 Mississippi State University
- 2. Co-organizer FASEB Mobile DNA in Mammalian Genomes June, 2017 Big Sky, MT
- 3. Lead Organizer FASEB Mobile DNA June, 2019 Palm Springs, CA

<u>FUNDING</u>

Agency, Title, PIs and Co-PIs, Amount Requested/Obtained, Duration; Percentage of effort) Total career funding: \$1,783,608

Total TTU funding: \$815,745 (~46% of total funding)

- 1. RAPID: IOS-2032006: Collaborative Research: Immunological adaptations in bats to moderate the effect of coronavirus infection NSF, \$105,116, 6/1/2020 5/30/2021.
- 2. MCB-1915810 Conference: FASEB Science Research Conference on Mobile DNA: 25 Years of Discussion and Research, June 23-29, 2019, Palm Springs, CA NSF, \$7,200, 5/1/2019 4/30/2020.
- 3. RoL: FELS: EAGER: DEB-1838283: Genomics of exceptions to scaling of longevity to body size NSF, \$151,940, 9/1/2018 8/31/2020.
- 4. Distribution and conservation genetics of *Myotis* and other critically imperiled bats in Louisiana Louisiana Department of Wildlife and Fisheries, \$103,389, 1/1/2018 12/31/2020.
- 5. 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 9/1/2020.
- 6. Population Status of Texas Pocket Gophers (*Geomys* and *Thomomys*) Texas Parks and Wildlife Department, 2016-2020; \$182,906
- 7. RFP No. 209f for Endangered Species Research Projects for the Texas Kangaroo Rat Texas State Comptroller, 11/03/2014 4/31/2018; \$199,999.
- 8. DEB-1355176: piRNA Dynamics in the Absence of Active TEs NSF, \$148,722; 4/15/2014 3/31/2017.
- 9. MCB-1052500: Completing the Crocodilian Triumvirate: A Genome Draft for the Indian Gharial NSF, \$85,323; 2011-2013.
- 10. Repetitive DNA Impacts on Agriculturally and Forensically Important Flies Mississippi
- 11. Agricultural and Forestry Experiment Station (Special Research Initiative); \$38,920; 2011.
- 12. DEB-1020865: Collaborative Research: A Novel Phylogenomic Approach to Bat Phylogenetics and Morphological Evolution NSF; \$134,861; 2010-2013.

- 13. Repetitive DNAs and their Impact on Agriculturally and Forensically Important Oestroid Flies Mississippi Agricultural and Forestry Experiment Station (Special Research Initiative); \$49,840; 2010.
- 14. MCB-0841821: Genome Evolution and Mobile Element Dynamics in Crocodylia NSF; \$748,247; 2010-2013.
- 15. Assessing Mobile Element Activity and Genome Diversity in the Crocodylia WV PSCoR; \$31,136; 2008-2009.
- 16. Mobile elements in blowfly genomes: Applications for phylogenetics and forensics WVU Faculty Senate; \$13,087; 2007-2008.
- 17. Genomics Education Matching Funds LI-COR; \$52,101.50; 2006-2007.
- 18. Texas Tech University Graduate School Summer Dissertation Research Award, \$500 2001.
- 19. Texas Tech University Association of Biologists Summer Research Award, \$500; 1999 and 2000.
- 20. Chancellor's Fellow, Texas Tech University, \$9,000; 1997 2000.

AWARDS

- 1. 2011 STATE PRIDE AWARD for excelling in teaching, research and service at Mississippi State University
- 2. 2010 STATE PRIDE AWARD for excelling in teaching, research and service at Mississippi State University
- 3. 2022 PRESIDENT'S ACADEMIC ACHIEVEMENT AWARD

POSTDOCTRORAL 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 Foley – Texas Tech University, 2018

Diana Moreno Santillan – Texas Tech University, 2019 – 2021

GRADUATE STUDENT COMMITTEES (at TTU unless otherwise indicated)

Completed:

Chair of Advisory Committee

Blanco-Berdugo, Laura – M.S. 2018 – Thesis title: Exploring Transposable Elements in the Class Chondricthyes

Castellanos Insuasti, Francisco X. – M.S. 2023 – Thesis title: A Comparative Genomics Approach to Unravel the Evolutionary Dynamics of Transposable Elements and Innate Immune Genes in Chiroptera

Ghosh, Arnab – Ph.D. 2018 – Dissertation title: Gene annotation and small RNA characterization in the salt water crocodile: *Crocodylus porosus*

Halsey, Michaela – Ph.D. 2021 (Richard Stevens, Co-chair) – Dissertation title: Conservation genomics and distribution modelling of Texas geomyoid rodents

Mangum, Sarah – M.S. 2016 – Thesis title: Exploration of Evolutionary Relationships and LINE-1 Retrotransposition Accumulation/Activity within Sciurids

Lavoie, Christine – M.S. 2014 MSU – Thesis title: Transposable Element Content in Non-Model Insect Genomes

Korstian, Jennifer – Ph.D. 2022 – Dissertation title: Unraveling the Myotis Morass: Genomic Analysis Reveals Introgression, Cryptic Diversity, and Taxonomic Trouble in the Most Species Rich Bat Genus.

- Pagan, Heidi Ph.D. 2011, MSU Dissertation title: A Study of Mobile DNA Content and Activity in Non-Model Mammalian Organisms
- Paulat, Nicole M.S. 2020 Thesis title: Examining Transposable Elements in *Myotis*: Distributions and Associate Mutations
- 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*.
- Vaca- Puente, Sarah M.S. 2023 Thesis title: Evaluation of the Bioinformatic Tool RAM and Diversification of *Carollia perspicillata* and *C. brevicauda* (Chiroptera: Phyllostomidae)

Member of Advisory Committee

Balaguera-Reina, Sergio – Ph.D. 2017

Buckley, Byron – Ph.D. 2019

Corley, Megan – Ph.D. 2015

Dogan, Sule - Ph.D. 2013, MSU

Grant, Kamilah – Ph.D. 2013, MSU

Fumagalli, Sarah – Ph.D. 2020

Hu, Nan – Ph.D. 2023

Koon, Brittany – M.S. 2016

Krafsur, Alyssa – M.S. 2021

Lindsay, Laramie – Ph.D. 2020

Luecke, Alex – M.S. 2023

Nestor, Kristin N. - M.S. 2006, WVU

Picard, Christine - Ph.D. 2010, WVU

Ripley, Jennifer L. - Ph.D. 2006, WVU

Roberts, Emma – Ph.D. 2020

Rowe, Megan - M.S. 2021

Singh, Baneshwar – Ph.D. 2011, WVU

Singh, Simrandeep – M.S. 2021

Smith, Tiffany – M.S. 2010, WVU

Sullivan, Kevin – Ph.D., incomplete

Vandewege, Michael - Ph.D. 2016, MSU

Vazquez, Ryan – Ph.D. 2021

Vianna, Beatriz – M.S. 2010, WVU

Willis, Ray E. - Ph.D. 2006

Young, Stephanie – Ph.D. 2011, WVU

Wright, Emily – Ph.D. 2023

In Progress.

Chair of Advisory Committee

Correa-Perdomo, Angela – M.S.

Garcia, Carlos – M.S. (Richard Stevens, Co-chair)

Gambhir, Diksha – Ph.D.

Grimshaw, Jenna – Ph.D. (Richard Stevens, Co-chair)

Hoyos, Manuel – Ph.D.

Osmanski, Austin – Ph.D. (Llewellyn Densmore, Co-chair)

Paulat, Nicole – Ph.D.

Member of Advisory Committee

Kaur, Amandeep – Ph.D.

Meadows, Brandon – M.S.

Ramirez, Amanda – Ph.D.

Rice, Ari – Ph.D.

Sharma, Era – Ph.D.

Sung, Helen – Ph.D. University of Hawaii at Manoa

FIELDWORK

Bat collections in Texas – Various trips 2013-present.

Mammal collections in Texas and New Mexico - Various trips 2013-present.

Alligator collections in Louisiana – Collection of live alligators via hand and break-away snare capture for molecular analyses. 2015, 2019.

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 contribute to groundbreaking mammal research

https://www.kcbd.com/2023/04/27/texas-tech-researchers-contribute-groundbreaking-mammal-research/

Texas Tech biologists look to bats for solution to COVID-19

https://www.lubbockonline.com/news/20200611/texas-tech-biologists-look-to-bats-for-solution-to-covid-19

TTU evolutionary biologists awarded grant to study bats as possible Covid-19 solution

https://www.everythinglubbock.com/news/klbk-news/ttu-evolutionary-biologists-awarded-grant-to-study-bats-as-possible-covid-19-solution/?fbclid=IwAR37jpIAT3h-dZMBU9Ls4WPCMYYs_E3Ps1s7UnIpC-PmmkEdSe5OfUL8VXk

Evolutionary Biologists Look to Bats for Solution to COVID-19

https://today.ttu.edu/posts/2020/06/Stories/evolutionary-biologists-look-bats-solution-covid-

19?fbclid=IwAR2x8nVg_rQHxsAlrn724rFKAity2yILM6bLlyjoCLwFeSeecOFoww55kfk

<u>Texas Tech Researchers Look to Solve Its Pigeon Problem</u> –

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 Crocodilian Genomes -

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

http://phys.org/news/2014-12-texas-tech-biologist-group-crocodilian.html

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

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

Crocodiles are 'stuck in the past' -

http://www.dailymail.co.uk/sciencetech/article-2870411/Crocodiles-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 Crocodiles, Birds, Dinosaurs -

http://news.ucsc.edu/2014/12/crocodile-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 Crocodilian Genomes -

http://phys.org/news/2014-12-texas-tech-biologist-group-crocodilian.html

New Family Tree Illuminates 'Big Bang' in Bird Evolution After Dinosaur Extinction -

http://news.nationalgeographic.com/news/2014/12/141211-bird-crocodile-dinosaurgenome-evolution-science/

Tech research: Crocodilian species similar -

 $http://lubbockonline.com/local-news/2014-08-26/tech-research-crocodilian-species-similar \#. U_8wNPmwIIA$

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 Crocodilian Species -

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

MSU researcher's study leads to swamps, 'gators' -

http://msucares.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.di sease.prevention

<u>WCBI</u> – 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.