EDWARD CLAIBORNE THERIOT
CURRICULUM VITAE
JUNE 14, 2019

512.826.8067 cell
etheriot@austin.utexas.edu
Professor, Department of Integrative Biology
Director, Texas Memorial Museum
University of Texas at Austin

I. Education

University of Michigan, Ann Arbor, MI, 1978-1983, School of Natural Resources, Ph.D.
Louisiana State University, Baton Rouge, LA, 1975-1978, Fisheries Biology, Botany minor, Phi Kappa Phi Honor Society, M.S.
Louisiana State University, Baton Rouge, LA, 1972-1975, Zoology, B.S.
University of Miami, Coral Gables, FL, 1971-1972, Biology, no degree.

II. Professional Experience

II A. Formal positions

1997 - . Director, Texas Natural Science Center/Texas Memorial Museum, University of Texas at Austin (UT Austin).
1997 - . Jane and Roland Blumberg Centennial Professor of Molecular Evolution, Department of Integrative Biology, UT Austin.
1994-1996. Vice-President, Systematics and Evolutionary Biology, Academy of Natural Sciences of Philadelphia (ANSP)
1993-1997. Associate Curator, Diatom Herbarium, ANSP.
1989-1993. Assistant Curator, Diatom Herbarium, ANSP.
1988-1989. Research Assistant Professor, Graduate Faculty, Department of Botany, Louisiana State University (LSU).
1986-1988. Assistant Research Scientist, Great Lakes Research Division (GLRD), University of Michigan (UM).
1984-1986. Research Investigator, GLRD, UM.
1984. Jessup-McHenry Fellowship. Academy of Natural Sciences of Philadelphia.
1983-1984. Research Associate, Department of Oceanography, Texas A&M University.
1978-1982. Research Assistant, GLRD, UM.
1978. Research Associate, Center for Wetland Resources, LSU.
1974-1977. Research Assistant, Louisiana Cooperative Fisheries Unit, LSU.

II B. Teaching Experience

BIO 301M Ecology, Evolution and Society (UT Austin)
BIO 370 Evolution (UT Austin)
UGS 302 Texas and Water: History, Biology and the Future (UT Austin)
BIO 337 Natural History of the Protists (UT Austin).
BIO 456 Limnology and Oceanography (UT Austin).
Natural History Museum Class, Annual lectures on component dealing with Museum Strategic Planning, University of Texas at Austin.

Phylogenetic Inference, Department of Bioscience and Biotechnology, Drexel University (sole lecturer).
Morphological Evolution and Systematics (co-lecturer), Biology Department, University of Pennsylvania
Logic of Phylogenetic Inference, Botany Department, LSU
Phycology, guest lectures, Botany Department, LSU
Evolutionary Ecology, guest lectures, Department of Bioscience and Biotechnology, Drexel University
Great Lakes Limnology, teaching assistant, Biological Station, UM.

II C. Invited Seminars / Symposium Talks

2013. *Signal, noise, congruence, conflict and taxon sampling in diatom molecular phylogenetics: Cautionary tales in the age of phylogenomics.* Invited plenary talk at the Molecular Life of Diatoms Meeting, Paris, France, June 2013.
2011. *Pattern and process in diatom evolution: rates of morphological and molecular evolution and cladogenesis*. Irkutsk State University, Irkutsk, Siberia, Russia. October 2011.
2010. *Pattern and process in lacustrine diatom evolution: a marriage of phylogeny and ecology*. Plenary Address. Fifth Vereschagin Baikal Conference. Limnological Institute of the Russian Academy of Sciences. October 2010.
2009. *The Diatom Phylogeny: Status and Prospects*. Invited Keynote Presentation - Diatom Taxonomy in the 21st Century: Symposium in Honour of Henri Van Heurck. National Botanic Garden of Belgium.
2007. *The status of the diatom phylogeny as inferred by the SSU rDNA gene.* Invited talk - 21st North American Diatom Symposium. University of Michigan Biological Station.
2001. *Problems in molecular phylogenetic studies of diatoms*. Plenary address at 16th North American Diatom Symposium.
1994. Co-lecturer in phylogenetic systematics. Short-course at University of Stockholm.
1993. Invited speaker in symposium on species concepts and evolution at 1993 AIBS meeting.
1991. Society for the Study of Evolution, invited symposium talk: *Pattern and process in diatom evolution*.
1991. International Phycological Society Meeting, invited symposium talk: *Cladistic analysis of morphological and biochemical data.*
1991. International Phycological Society Meeting, invited symposium talk: *The status of algal collections and algal systematics.*
1991. International Chrysophyte Symposium, invited symposium talk: *Cladistic and morphometric analysis of algae.*
1990. International Diatom Symposium, invited talk: *Morphometrics and diatom taxonomy.*
1989. North Dakota State University, invited seminar: *Problems with molecular phylogenies: Taxon sampling.*
1987. University of Chicago. Department of Biology, invited seminar: *Evolutionary phenomena in freshwater centric diatoms.*
1986. Chinese Academy of Sciences, Institute of Geology, Beijing, invited seminar: *Present and future directions of fossil diatom research - paleoecology, evolutionary studies, stratigraphy and taxonomy*.
1985. Invited address, Eighth North American Diatom Symposium. *Comments on pattern in diatom evolution with some examples from the freshwater Thalassiosiraceae.*
1985. Smithsonian Institution. National Museum of Natural History, Department of Paleobiology, invited seminar: *Pattern in diatom evolution: Preliminary results from the centric family Thalassiosiraceae.*

1985. Academy of Natural Sciences of Philadelphia. Invited seminar: *Ontogenetic, environmental and geographic factors underlying variation in* Stephanodiscus niagarae *and related diatoms: a multivariate approach.*

III. Professional Service

Associate Editor, Phycologia (Journal of the International Phycological Society) (2015 -)
Nominations Committee Chair, Association of Systematics Collections (1999-2000)
President of National Board of Directors, Association of Systematics Collections (1997 - 1999)
National Board of Directors, Association of Systematics Collections (1995 - 1997)
Molecular Phylogenetics and Evolution (Editorial Board 1992 - 2000)
National Science Foundation Systematics Advisory Panel (1991 - 1993)
Phycological Society of America (Editorial Board 1988 - 1990, Associate Editor 1991 - 1993)
Willi Hennig Society (Editor of *Cladistics* 1993 - 1994)
Species Concepts Committee, member, Systematics Agenda 2000
Phylogenetic Inference Committee, member, Systematics Agenda 2000
Guest speaker at AIBS Public Responsibilities Session, Richmond, VA, August 7, 1990.
Phycology Discipline Coordinator, Association of Systematics Collections Workshop on Collections Resources for the 1990's, October 1988.
Chair of ad hoc committee on algal collections, Phycological Society of America, 1989.

IV. Awards and Grants

IV.A. Government Agencies

2018-2020. NSF. DEB: Population and Community Ecology. Collaborative Proposal: *Intraspecific trait variation in phytoplankton at different scales*. $448,293.
2012-2015. NSF. Assembling, Visualizing and Analyzing the Tree of Life. *Collaborative Research: Next generation phenomics for the Tree of Life*. $103,238.
2011-2014. NSF. Dimensions of Biodiversity. *Collaborative Research: Lake Baikal responses to global change: the role of genetic, functional and taxonomic diversity in the plankton*. $414,878.
2010-2012. US Geological Survey. *Historical trends and modern invasions: distinguishing Didymosphenia populations in the Rocky Mountains of the western US*. $63,980.
2006-2011. NSF Emerging Frontiers. *AToL: A phylogenetic and genomic investigation of the algal heterokont tree*. $989,917 (PI, with Robert K. Jansen, co-PI).
2001-2006. NSF Systematic Biology Program. *PEET: Training new diatom systematists for new priorities*. $737,543. (PI; with Robert K. Jansen, co-PI.)
1999. IMLS Conservation Program. *Texas Cretaceous Rehousing Project*. $48,788. (sole PI)
1994-1997. NSF Ecology Program. *Resource competition theory: the link between climate change and diatom sedimentary assemblages in the Yellowstone ecosystem*. November 1994-October 1997. $270,000. (Susan Kilham, PI; E. Theriot, co-PI)
1994. NSF Research Collections in Systematics and Ecology Program. *Improvement of Diatom Herbarium Access.* September 1994-August 1994. $35,000. (sole PI)
1994-1996. NSF Academic Research Infrastructure Program. *Replacement of Biological Research Laboratories and Herpetology Collection Storage Facility*. May 1994-May 1996. $592,000.
1991-1994. NSF Systematic Biology Program. *A Multidisciplinary Study of Evolution of the Diatom Stephanodiscus yellowstonensis: Paleontology, Molecular Biology, Experimental Morphology*. November 1991-October 1994. $378,000. (sole PI)
1991-1993. NSF Biotic Research Resources. *Continued Curation of the Diatom Herbarium Types*. November 1991- November 1993. $105,000. (sole PI)

1989-1991. NSF Systematic Biology Program. *Renewed Study of Phylogenetic Relationships of Freshwater Genera of the Centric Diatom Family Thalassiosiraceae.* January 1989-January 1991. $79,522. (sole PI)
1989. NSF Systematic Biology Program. *REU Supplemental Award to Ribosomal Genes and Chlorophyte Phylogeny*. June 1989-December 1989. $8,000. (co-PI; Russell Chapman, PI).
1986-1989. NSF Systematic Biology Program. *Phylogenetic Relationships of the Freshwater Genera of the Centric Diatom Family Thalassiosiraceae.* January 1986-January 1989. $107,000. (sole PI)
1983. NSF U.S.-Latin American Cooperative Programs Travel Grant. (co-PI; Greta Fryxell,PI).

IV.B. Selected Major Private and Family Foundation Gifts

2016. Still Water Foundation. *Increasing collaboration between visitors and peers at the Texas Memorial Museum*. $50,000.
2014-2015. Still Water Foundation. *Transitioning the Texas Memorial Museum from "Free to Fee"*. $75,000. (Includes a graduate student for education research.)
2009-2010. Winkler Family Foundation. *Preparing K-12 teachers to effectively teach evolution.* $20,000. (Integrated professors into outreach programs.)
2006-2008. Winkler Family Foundation. *Preparing K-12 teachers to effectively teach evolution.* $20,000. (Integrated professors into outreach programs).
2006. Schoolar Family Foundation. *Fishes of Texas Website*. $20,000. (Foundation of development of the Fishes of Texas on-line database.)
2003. Butler Family Foundation. *Plans to Finish the Reconfiguration of the Texas Memorial Museum's Interior and to Begin Mission Appropriate Landscaping of the Exterior*. $150,000. (Includes outreach in aquatic sciences.)
2003. Kodosky Family Foundation. *K-12 teacher professional development*. $10,000.
1997-1999. Kodosky Family Foundation. *Website development and K-12 teacher professional development.* Several sequential gifts totaling $22,000.

V. Research Interests

Diatom evolution, ecology and environmental change.
Biostratigraphy and paleolimnology.
Systematic theory and application.

VI. Publications

VI.A. Peer-reviewed book chapters, journals and symposia proceedings

101. Gastineau R, Kim S-Y, Lemieux C, Turmel M, Witkowski A, Park J-G, Kim B-S, Mann DG, **Theriot EC** (2019) Complete mitochondrial genome of a rare diatom (Bacillariophyta) *Proschkinia* and its phylogenetic and taxonomic implications. Mitochondrial DNA Part B 4:25-26.
100. Shrestha, B., M.-L. Weng, **E.C. Theriot**, L.E. Gilbert, T. Ruhlman, S.E. Krosnick, & R.K. Jansen. (2019). Highly accelerated rates of genomic rearrangements and nucleotide substitutions in plastid genomes of *Passiflora* subgenus *Decaloba*. Molecular Phylogenetics and Evolution. 138:53-64.

99. Lobban, C. S., M. P. Ashworth, J. J. M. Calaor and **E. C. Theriot** (2019). Extreme diversity in fine-grained morphology reveals fourteen new species of conopeate *Nitzschia* (Bacillariophyta: Bacillariales). Phytotaxa 401 (4): 199-238.
98. Yu, M., Ashworth, M. P., Hajrah, N. H., Khiyami, M. A., Sabir, M. J., Alhebshi, A. M., Al-Malki, A. L., Sabir, J. S. M., **Theriot, E. C.** & Jansen, R. K. (2018). Chapter Five - Evolution of the Plastid Genomes in Diatoms. In: Advances in Botanical Research (S.-M. Chaw & R. K. Jansen, eds.), 129-155. Academic Press.
97. Sabir, J. S. M., **Theriot, E. C*.**, Lobban, C. S., Alhebshi, A. M., A.-Malki, A. L., Hajrah, N. H., Khiyami, M. A., Obaid, A. Y., Jansen, R. K. & Ashworth, M. A. (2018a). Systematics of araphid diatoms with asymmetric rimoportulae or densely packed virgae, with particular attention to *Hyalosynedra* (Ulnariaceae, Bacillariophyta). Phytotaxa, 347, 49. **(*CO-FIRST AUTHOR)**
96. Sabir, J. S. M., **Theriot, E. C*.**, Manning, S. R., Al-Malki, A. L., Khiyami, M. A., Al-Ghamdi, A. K., Sabir, M. J., Romanovicz, D. K., Hajrah, N. H., El Omri, A., Jansen, R. K. & Ashworth, M. P. (2018b). Phylogenetic analysis and a review of the history of the accidental phytoplankter, *Phaeodactylum tricornutum* Bohlin (Bacillariophyta). PLoS ONE, 13, e0196744. **(*CO-FIRST AUTHOR)**.
95. Spanbauer, T. L., Brown, S. R., Cartier, R., Conley, D. J., Fritz, S. C., Schiller, C. M., **Theriot, E. C.**, Whitlock, C. & Zahajská, P. (2018). Yellowstone Lake Coring Projects: Research with a History. Limnology and Oceanography Bulletin, 27, 6-10.
94. Frankovich, T. A., Ashworth, M. P., Sullivan, M. J., **Theriot, E. C**. & Stacy, N. I. (2018). Epizoic and apochlorotic *Tursiocola* species (Bacillariophyta) from the skin of Florida manatees (*Trichechus manatus latirostris*). Protist, 169, 539-568.
93. Gargas, C. B., **Theriot, E. C.,** Ashworth, M. P. & Johansen, J. R. (2018). Phylogenetic analysis reveals that the 'radial centric' diatom *Orthoseira* Thwaites (Orthoseiraceae, Bacillariophyta) is a member of a 'multipolar' diatom lineage. Protist. 169 (6): 803-825.
92. Ruck, E. C., Linard, S. R., Nakov, T., **Theriot, E. C**. & Alverson, A. J. (2017). Hoarding and horizontal transfer led to an expanded gene and intron repertoire in the plastid genome of the diatom, *Toxarium undulatum* (Bacillariophyta). Current Genetics, 63, 499-507.
91. Williams, D. M., Sims, P. A., Ashworth, M. & **Theriot, E. C.** (2017). (2561-2562) Proposals to reject the names *Microtheca* and *Anuraea octoceras* (*M. octoceras*) (Bacillariophyceae). Taxon, 66, 1466-67.
90. M.P. Ashworth, C.S. Lobban, A. Witkowski, **E.C. Theriot**, M.J. Sabir, M.N. Baeshen, N.H. Hajrah, N.A. Baeshen, J.S.M. Sabir and R.K. Jansen. 2017. Molecular and morphological investigations of the stauros-bearing, raphid pennate diatoms (Bacillariophyceae): *Craspedostauros* E.J. Cox and *Staurotropis* T.B.B. Paddock and their relationship to the rest of the Mastogloiales. *Protist* 168 (1): 48-70.
89. Andrzej Witkowski, Chunlian Li, Izabela Zgłobicka, Shu-xian Yu, Matt Ashworth, Przemysław Dąbek, Song Qin, Cheng Tang, Marta Krzywda, Manfred Ruppel, **Edward C Theriot**, Robert K. Jansen, Ana Car, Tomasz Płociński, Yin-chu Wang, Jamal S.M. Sabir, Genowefa Daniszewska-Kowalczyk, Agnieszka Kierzek and Nahid H Hajarah. 2016. Multigene assessment of biodiversity of diatom (Bacillariophyceae) assemblages from the littoral zone of the Bohai and Yellow Seas in Yantai region of northeast China with some remarks on ubiquitous taxa. *Journal of Coastal Research* 74: 164-193.
88. Ashworth, M.P., C.S. Lobban, A. Witkowski, **E.C. Theriot**, M.J. Sabir, M.N. Baeshen, N.H. Hajarah, N.A. Baeshen, J.S.M. Sabir, R.K. Jansen. (accepted for publication, formal email 28 September 2016). Molecular and morphological investigations of the stauros-bearing, raphid pennate diatoms (Bacillariophyceae): *Craspedostauros* E.J. Cox, and *Staurotropis* T.B.B. Paddock, and their relationship to the rest of the Mastogloiales. *Protist*

87. Ruck, E.C., Nakov, T., Alverson, A.J., **Theriot, E.C**. 2016. Nomenclatural transfers associated with the phylogenetic reclassification of the Surirellales and Rhopalodiales. *Notulae Algarum*. No. 10. http://www.notulaealgarum.com/2016/index.php
86. Ruck, E.C., Nakov, T., Alverson, A.J., **Theriot, E.C**., 2016. Phylogeny, ecology, morphological evolution, and reclassification of the diatom orders Surirellales and Rhopalodiales. *Mol. Phylogenet. Evol*. 103, 155-171.
85.C. Li, MP Ashworth, A Witkowski, P Dąbek, LK Medlin, WHCF Kooistra, S Sato, I Zgłobicka, gJ Kurzydłowski, **E.C. Theriot**, JSM Sabir, MA Khiyami, MHZ Mutwakil, MJ Sabir, NS Alharbi, NH Hajarah, S Qing and RK Jansen. 2015. New insights into Plagiogrammaceae (Bacillariophyta) based on multigene phylogenies and morphological characteristics with the description of a new genus and three new species. *PLoS ONE* 10(10): e0139300. doi:10.1371/journal.pone.0139300.
84. **Theriot, E.C.,** Ashworth, M.P., Nakov, T., Ruck, E.C., Jansen, R.K. (2015). Dissecting signal and noise in diatom chloroplast protein encoding genes with phylogenetic information profiling. *Mol. Phylogenet. Evol*. 89:28-36.
83. Nakov, T., Guillory, W., Julius, M. **Theriot, E.C.,** Alverson, A. 2015. Towards a phylogenetic classification of species belonging to the diatom genus *Cyclotella* (Bacillariophyceae): Transfer of species formerly placed in *Puncticulata*, *Handmannia*, *Pliocaenicus* and *Cyclotella* to the genus *Lindavia*. *Phytotaxa* 217(3):249-264.
82. Kociolek, J.P., G.K.Khursevich. **E.C.Theriot**. 2014. *Strelnikoviella incognita* gen. nov., sp. nov., from Miocene sediments of New México, USA. *Beihefte zur Nova Hedwigia*. 143: 271-280.
81. Sabir, J.S.M., Yu, M., Ashworth, M.P., Baeshen, N.A., Baeshen, M.N., Bahieldin, A., **Theriot, E.C**., Jansen, R.K., 2014. Conserved gene order and expanded Inverted repeats characterize plastid genomes of Thalassiosirales. *PLoS ONE* 9, e107854.
80. Ruck, E.C., T. Nakov, R.K. Jansen, **E.C. Theriot**, and A.J. Alverson. 2014. Serial gene losses and foreign DNA underlie size and sequence variation in the chloroplast genomes of diatoms. *Genome Biology and Evolution.* (doi: 10.1093/gbe/evu039).
79. Nakov, T., **E.C. Theriot**, and A.J. Alverson. 2014. Using phylogeny to model cell size evolution in marine and freshwater diatoms. *Limnology and Oceanography* 59(1): 79-86.
78. Nakov, T., Ashworth, M.P., **Theriot, E.C**. 2014. Comparative analysis of the interaction between habitat and growth form in diatoms. *The ISME J*. (2014) 1-10.
77. Keeling, P.J., F. Burki, HM Wilcox, B Allam, EE Allen, LA Amaral-Zettler, EV Armbrust, JM Archibald, AK Bharti, CJ Bell, B Beszteri, KD Bidle, CT Cameron, L Campbell, DA Caron, RA Cattolico, JL Collier, K Coyne, SK Davy, P Deschamps, ST Dyhrman, B Edvardsen, RD Gates, CJ Gobler, SJ Greenwood, SM Guida, JL Jacobi, KS Jakobsen, ER James, B Jenkins, U John, MD Johnson, AR Juhl, A Kamp, LA Katz, R Kiene, A Kudryavtsev, BS Leander, S Lin, C Lovejoy, D Lynn, A Marchetti, G McManus, AM Nedelcu, S Menden-Deuer, C Miceli, T Mock, M Montresor, MA Moran, S Murray, G Nadathur, S Nagai, PB Ngam, B Palenik, JPawlowski, G Petroni, G Piganeau, MC Posewitz, K Rengefors, G Romano, ME Rumpho, T Rynearson, KB Schilling, DC Schroeder, AGB Simpson, CH Slamovits, DR Smith, GJ Smith, SR Smith, HM Sosik, P Stief, **E Theriot**, SN Twary, PE Umale, D Vaulot, B Wawrik, GL Wheeler, WH Wilson, Y Xu, A Zingone, AZ Worden. 2014. The marine microbial eukaryote transcriptome sequencing project (MMETSP): illuminating the functional diversity of eukaryotic life in the oceans through transcriptome sequencing. *PLOS Biology*.12(6):e1001889.
76. Nakov, T., E.C. Ruck, Y. Galachyants, S.A. Spaulding, **E.C. Theriot**. 2014. Molecular phylogeny of the Cymbellales (Bacillariophyceae, Heterokontophyta) with a comparison of models for accommodating rate variation across sites. *Phycologica* 53(4):359-373.

75. Ashworth, M.P., T. Nakov, and **E.C. Theriot**. 2014. Revisiting Ross and Sims (1971): Towards a molecular phylogeny of the Biddulphiaceae and Eupodiscaceae. *Journal of Phycology* 49(6): 1207-1222.
74. Burleigh JG, A.K., Alverson AJ, Bik HM, Blank C, Cirranello AL, Cui H, Daly M, Dietterich TG, Gasparich G, Irvine J, Julius M, Kaufman S, Law E, Liu J, Moore L, O'Leary MA, Passarotti M, Ranade S, Simmons NB, Stevenson DW, Thacker RW, **Theriot EC,** Todorovic S, Velazco PM, Walls RL, Wolfe JM, Yu M, 2013. Next-generation phenomics for the Tree of Life. *PLOS Currents Tree of Life* 2013 Jun 26. Edition 1. http://currents.plos.org/treeoflife/article/next-generation-phenomics-for-the-tree-of-life/
73. Ashworth, M.P., E.C. Ruck, C.S. Lobban, D.K. Romanovicz, and **E.C. Theriot**. 2012. A revision of the genus *Cyclophora* and description of *Astrosyne* gen. nov. (Bacillariophyta), two genera with pyrenoids contained within pseudosepta. *Phycologia* 51: 684-699.
72. Ruck, E.C. and **E.C. Theriot**. 2011. Origin and evolution of the canal raphe system in diatoms. *Protist*. 162(5): 723-737.
71. Alverson, A.J., B. Beszteri, M.L. Julius, and **E.C. Theriot**. 2011. The model marine diatom *Thalassiosira pseudonana* likely descended from a freshwater ancestor in the genus *Cyclotella*. *BMC Evolutionary Biology*. 11:125. http://www.biomedcentral.com/1471-2148/11/125
70. **Theriot, E.C**., E. Ruck, M.P. Ashworth, T. Nakov and R.K. Jansen. 2011. Status of the pursuit of the diatom phylogeny: Are traditional views and new molecular paradigms really that different? In: *The Diatom World*. J. Seckbach and J.P. Kociolek (eds.) Springer. 600 pp.
69. Julius M. and **E.C. Theriot**. 2011. The diatoms: A primer. pp. 18-22. In: *The Diatoms: Applications for Environmental and Earth Sciences.* (J. Smol and E.F. Stoermer, eds.), 2nd Ed. Cambridge University Press., 667 pp.
68. Lobban, C.S., M.P. Ashworth, and **E.C. Theriot**. 2010. *Climaconeis* species (Bacillariophyceae: Berkeleyaceae) from western Pacific islands, including *C. petersonii* sp. nov. and *C. guamensis* sp. nov., with emphasis on the plastids. *European Journal of Phycology*. 45(3): 293-307.
67. **Theriot, E.C**., M. Ashworth, E. Ruck, T. Nakov and R.K. Jansen. 2010. A preliminary multigene phylogeny of the diatoms (Bacillariophyta): challenges for future research *Plant Evolution and Ecology* 143(3): 1-18.
66. **Theriot, E.C**., J.J. Cannone, R.R. Gutell and A.J. Alverson. 2009. The limits of nuclear encoded SSU rDNA for inferring the diatom phylogeny. *European Journal of Phycology* 44(3): 277-290. (Best Paper. European Journal of Phycology, 2009).
65. **Theriot, E.C**. and B. Jones. 2009. The morphology, physiology and taxonomy of two small *Stephanodiscus* species in Yellowstone and Jackson Lake, Wyoming, USA. *Nova Hedwigia, Beihefte* 135:275-293.
64. Winsborough, B.M., **E. Theriot** and D.B. Czarnecki. 2009. Diatoms on a continental "island": Lazarus species, marine disjuncts, and other endemic diatoms of the Cuatro Cienégas basin, Coahuila, México. *Nova Hedwigia, Beihefte* 135: 257-274.
63. **Theriot, E.C.** 2008. Application of phylogenetic principles to testing evolutionary scenarios: a comment on Kaczmarska et al. "Molecular phylogeny of selected members of the order Thalassiosirales (Bacillariophyta) and evolution of the fultoportula". *Journal of Phycology* 44:821-833.
62. Alverson, A.J., R.K. Jansen, and **E.C. Theriot**. 2007. Bridging the Rubicon: phylogenetic analysis reveals repeated colonization of marine and freshwaters by thalassiosiroid diatoms. *Molecular Phylogenetics and Evolution* 45: 193–210.

61. Alverson, A.J., S.-H. Kang and **E.C. Theriot**. 2006. Cell wall morphology and systematic importance of *Thalassiosira ritscheri* (Hustedt) Hasle, with a description of *Shionodiscus* gen. nov. *Diatom Research* 21:251-262.
60. Alverson, A.J, J.J. Cannone, R.R. Gutell and **E.C. Theriot**. 2006. The evolution of elongate cell shape in diatoms. *Journal of Phycology* 42:655-668.
59. **Theriot, E.C**., S.C. Fritz, C. Whitlock, and D.J. Conley. 2006. Late-Quaternary rapid morphological evolution of an endemic diatom in Yellowstone Lake, Wyoming. *Paleobiology* 23(1): 38-54.
58. Alverson, A.J. and **E.C. Theriot**. 2005. Comments on recent progress toward reconstructing the diatom phylogeny. *Journal of Nanoscience and Nanotechnology* 5(1): 57-62.
57. Tapia, P. M., **E.C. Theriot**, S. C. Fritz, F. Cruces and P. Rivera. 2004. Distribution and morphometric analysis of *Cyclostephanos andinus* comb. nov., a planktonic diatom from the Central Andes. *Diatom Research* 19: 311-327.
56. Edgar, S.M., and **E.C. Theriot**. 2004. Phylogeny of *Aulacoseira* (Bacillariophyta) based on morphology and molecules. *Journal of Phycology* 40: 772-788.
55. Edgar, S.M., and **E.C. Theriot**. 2003. Heritability of mantle areolar characters in *Aulacoseira subarctica* (Bacillariophyta). *Journal of Phycology* 39: 1057-1066.
54. Rines, J.E.B., and **E.C. Theriot**. 2003. Systematics of Chaetocerotaceae (Bacillariophyceae). I. A Phylogenetic Analysis of the Family. *Phycological Research* 51: 83-98.
53. Goertzen, L.R., and **E.C. Theriot**. 2003. Effects of outgroup selection, taxonomic sampling, character weighting, and combining data on interpretation of relationships among the heterokont algae. *Journal of Phycology* 39(2): 423-439.
52. Interlandi, S.J., S.S. Kilham, and **E.C. Theriot**. 2003. Diatom-chemistry relationships in Yellowstone Lake (Wyoming) sediments: Implications for climatic and aquatic processes research. *Limnology and Oceanography* 48(1): 79-92.
51. Rines, J.E.B., P. Boonruang and **E.C. Theriot**. 2000. *Chaetoceros phuketensis* sp. nov. (Bacillariophyceae). A new species from the Andaman Sea. *Phycological Research* 48: 161-168.
50. Mishler, B.D. and **E.C. Theriot**. 2000. The Phylogenetic Species Concept sensu Mishler and Theriot: Monophyly, Apomorphy, and Phylogenetic Species Concepts. Ch. 4 (pp. 44-54) in Q.D. Wheeler and R. Meier. *Species Concepts and Phylogenetic Theory: A Debate*. Columbia University Press. 230 pp.
49. Mishler, B.D. and **E.C. Theriot**. 2000. A Critique from the Mishler and Theriot Phylogenetic Species Concept Perspective: Monophyly, Apomorphy, and Phylogenetic Species Concepts. Ch. 9 (pp. 119-132) in Q.D. Wheeler and R. Meier. *Species Concepts and Phylogenetic Theory: A Debate*. Columbia University Press. 230 pp.
48. Mishler, B.D. and **E.C. Theriot**. 2000. A Defense of the Phylogenetic Species Concept sensu Mishler and Theriot: Monophyly, Apomorphy, and Phylogenetic Species Concepts. Ch. 14 (pp. 179-184) in Q.D. Wheeler and R. Meier. *Species Concepts and Phylogenetic Theory: A Debate*. Columbia University Press. 230 pp.
47. Interlandi, S.J., S.S. Kilham and **E.C. Theriot**. 1999. Responses of phytoplankton to varied resource availability in large lakes of the Greater Yellowstone Ecosystem. *Limnology and Oceanography* 44(3): 668-682.
46. Spamer, E.E. and **E.C. Theriot**. 1997. "*Stephanodiscus minutulus*," "*S. minutus*," and similar epithets in taxonomic, ecological, and evolutionary studies of modern and fossil diatoms (Bacillariophyceae: Thalassiosiraceae) -- A century and a half of uncertain taxonomy and nomenclatural hearsay. *Proceedings of the Academy of Natural Sciences of Philadephia*. 148: 231-272.

45. **Theriot, E.C**., S.C. Fritz and R.E. Gresswell. 1997. Long-term limnological data from the larger lakes of Yellowstone National Park. *Journal of Arctic and Alpine Research*. 29: 304-314.
44. Kilham, S.S., **E.C. Theriot** and S.C. Fritz. 1996. Linking planktonic diatoms and climate change using resource theory in the large lakes of the Yellowstone ecosystem. *Limnology and Oceanography* 41(5): 1052-1062.
43. Serieyssol, K.K., **E. Theriot**, & F. Gasse. 1995. *Stephanodiscus radiatus* and *Mesodictyon gasseae,* two new Upper Miocene species of the Thalassiosiraceae from Ardeche, France. *Nova Hedwigia* 62: 221-231.
42. **Theriot, E.** and K. Serieyssol. 1994. Phylogenetic systematics as a guide to understanding features and potential morphological characters of the centric diatom family Thalassiosiraceae. *Diatom Research* 9(2): 429-450.
41. Buccheim, M.A., M.A. McAuley, E.A. Zimmer, **E.C. Theriot** and R.L. Chapman. 1994. Multiple origins of colonial green flagellates from unicells: Evidence from molecular and organismal characters. *Molecular Phylogenetics and Evolution* 3: 322-343.
40. Zechman, F.W., E.A. Zimmer and **E.C. Theriot**. 1994. Use of ribosomal DNA internal transcribed spacers for phylogenetic studies in diatoms. *Journal of Phycology* 30: 507-512.
39. Spotila, L.D., N.F. Kaufer, **E .Theriot**, K.M. Ryan, D. Penick, and J.R. Spotila. 1994. Sequence analysis of the ZFY and Sox genes in the turtle, *Chelydra serpentina*. *Molecular Phylogenetics and Evolution.* 3:1-9.
38. **Theriot, E**. 1992. Phylogenetic systematics, the theory and practice of taxonomy. *Prog. Phycol. Res.* Vol. 8. (Garbary, D. and John, D., eds.) pp. 179-207.
37. **Theriot, E**. 1992. Clusters, species concepts and morphological evolution of diatoms. *Syst. Biol*. 41: 141-157.
36. Conley, D. J., P. V. Zimba and **E. Theriot**. 1994. Silica content of freshwater and marine benthic diatoms. In Kociolek, J.P. [Ed.] *Proceedings of the 11th International Diatom Symposium, San Francisco, California, 12-17 August, 1990*. California Academy of Sciences, San Francisco, pp. 95-101.
35. **Theriot, E**. 1990. Four new species of *Mesodictyon* (Bacillariophyta: Thalassiosiraceae) in late Miocene lacustrine deposits of the Snake River Basin, Idaho. *Proc. Acad. Nat. Sci. Phila.* 142:1-19.
34. Zechman, F.W., **E.C. Theriot**, E.A. Zimmer and R.L. Chapman. 1990. Phylogeny of the Ulvophyceae (Chlorophyta): Cladistic analysis of nuclear-encoded rRNA sequence data. *J. Phycol.* 26: 700-710.
33. Kantz, T.S., **E.C. Theriot**, E.A. Zimmer and R.L. Chapman. 1990. The Pleurastrophyceae and Micromonadophyceae: a cladistic analysis of nuclear rRNA sequence data. *J. Phycol.* 26:711-721.
32. Kociolek, J.P., **E.C. Theriot** and D.M. Williams. 1989. Inferring diatom phylogeny: A cladistic perspective. *Diatom Research*. 4:289-300.
31. Zimmer, E.A., M.L. Arnold, R.K. Hamby, D.A. Leblanc and **E. Theriot**. 1989. Ribosomal RNA phylogenies and flowering plant evolution. Ch. 15 In: *The Hierarchy of Life*, Elsevier Science Publishers, pp. 205-214.
30. **Theriot, E**. 1989. Phylogenetic systematics for phycology. *J. Phycol*. 25: 407-411.
29. **Theriot, E.** and J.P. Bradbury. 1989. *Cyclostephanos guatemalae* n. sp. and *Cyclostephanos lacrimis* n. sp., two new centric diatoms from the fossil record of Guatemala, with comments on costa density as a taxonomic character. *Trans. Amer. Microsc. Soc.* 108:74-86.
28. Conley, D.J., S.S. Kilham and **E. Theriot**. 1989. Variation in the silica content of diatoms: differences between marine and freshwater diatoms. *Limnol. Oceanogr.* 34: 205-213.

27. **Theriot, E**. 1988. A review of Sluiman's cladistic classification of green plants with particular reference to flagellar data and to land plant origins. *Taxon* 37: 913-919.
26. **Theriot, E**., H. Håkansson and E.F. Stoermer. 1988. Morphometric analysis of *Stephanodiscus alpinus* (Bacillariophyceae) and its morphology as an indicator of lake trophic status. *Phycologia* 27: 485-493.
25. **Theriot, E**. 1988. An empirically based model of variation in rotational elements in centric diatoms with comments on ratios in phycology. *J. Phycol*. 24: 400-407.
24. **Theriot, E**., Y.Z. Qi, J.R. Yang and L.Y. Ling. 1988. Taxonomy of the diatom *Stephanodiscus niagarae* from a fossil deposit in Jingyu County, Jilin Province, China. *Diatom Research.* 3: 145-153.
23. Stoermer, E.F., H. Håkansson and **E.C. Theriot**. 1988. Morphology and ecology of *Stephanodiscus conspicueporus* (Bacillariophyceae). *Trans. Amer. Microsc. Soc*. 107: 46-52.
22. **Theriot, E**., E.F. Stoermer and H. Håkansson. 1987. Taxonomic interpretation of the rimoportula of freshwater genera in the centric diatom family Thalassiosiraceae. *Diatom Research* 2: 251-265.
21. **Theriot, E.** 1987. Principal component analysis and taxonomic interpretation of environmentally related variation in silicification in *Stephanodiscus* (Bacillariophyceae). *Brit. phycol. J*. 22: 359-373.
20. Krebs, W.N., J.P. Bradbury and **E. Theriot**. 1987. Neogene and Quaternary lacustrine diatom biochronology, western USA. *Palaios* 2: 505-513.
19. Stoermer, E.F., H. Håkansson and **E.C. Theriot**. 1987. *Cyclostephanos* species newly reported from North America: *C. tholiformis* sp. nov. and *C. costatilimbus* comb. nov. *Brit. phycol. J*. 22: 349-358.
18. **Theriot, E.**, H. Håkansson, J.P. Kociolek, F.E. Round and E.F. Stoermer. 1987. Validation of the diatom genus name *Cyclostephanos. Brit. phycol. J*. 22: 345-347.
17. Johansen, J.R. and **E. Theriot**. 1987. The relationship between valve diameter and number of central fultoportulae in *Thalassiosira weissflogii* (Bacillariophyceae). *J. Phycol*. 23: 663-665.
16. **Theriot, E.** and J.P. Bradbury. 1987. *Mesodictyon*, a new fossil genus of the centric diatom family Thalassiosiraceae from the Miocene Chalk Hills Formation, western Snake River Plain, Idaho. *Micropaleontology* 33: 356-367.
15. **Theriot, E.**, and E.F. Stoermer. 1986. Morphological and ecological evidence for two varieties of the diatom *Stephanodiscus niagarae*. In (Ricard, M., ed.) *Proc. Eighth Intl. Diat. Symp. Paris*, pp. 385-394.
14. Priddle, J., R.B. Heywood, and **E. Theriot**. 1986. Some environmental factors influencing phytoplankton in the southern ocean around South Georgia. *Polar Biol*. 6: 1-15.
13. Håkansson, H., **E. Theriot**, and E.F. Stoermer. 1986. *Stephanodiscus vestibulis* sp. nov. (Bacillariophyta). *Nord. J. Bot*. 6: 501-506.
12. **Theriot, E.**, and J.P. Kociolek. 1986. Two new Pliocene species of *Cyclostephanos* (Bacillariophyceae) with comments on classification of the freshwater Thalassiosiraceae. *J. Phycol*. 22: 121-128.
11. **Theriot, E.**, and T.B. Ladewski. 1986. Morphometric analysis of shape of specimens from the neotype of *Tabellaria flocculosa* (Bacillariophyceae). *Amer. J. Bot*. 73: 224-229.
10. Fryxell, G.A., R.W. Gould, Jr., E. Rocio Balmori, and **E.C. Theriot**. 1985. Gulf Stream warm core rings: Phytoplankton in two fall rings of different ages. *J. Plankton Res.* 7: 339-364.
9. **Theriot, E**., and G.A. Fryxell. 1985. Multivariate statistical analysis of net diatom species distributions in the southwestern Atlantic and Indian Oceans. *Polar Biol*. 5: 23-30.

8. **Theriot, E.**, H.J. Carney, and P. Richerson. 1985. Morphology, ecology and systematics of *Cyclotella andina* sp. nov. (Bacillariophyceae) from Lake Titicaca, Peru-Bolivia. *Phycologia* 24: 381-387.
7. Stoermer, E.F., and **E. Theriot**. 1985. Phytoplankton assemblages and water masses in Saginaw Bay and the adjacent Lake Huron region: Principal component and cluster analyses. *J. Great Lakes Res*. 11: 132-142.
6. **Theriot, E.**, and E.F. Stoermer. 1984. Principal component analysis of *Stephanodiscus*: Observations on two new species from the *Stephanodiscus niagarae* complex. *Bacillaria* 7: 37-58.
5. **Theriot, E.**, and E.F. Stoermer. 1984. Principal component analysis of variation in *Stephanodiscus rotula* and *S. niagarae* (Bacillariophyceae). *Syst. Bot*. 9: 53-59.
4. **Theriot, E.**, and E.F. Stoermer. 1984. Principal component analysis of character variation in *Stephanodiscus niagarae* Ehrenb.: Morphological variation related to lake trophic status. In *Proc. Seventh International Diatom Symposium*, Philadelphia, August 22-27, 1982. pp. 97-111.
3. Tuchman, M.L., E.F. Stoermer, and **E. Theriot**. 1984. Sodium chloride effects on the morphology and physiology of *Cyclotella meneghiniana*. *Arch. Protistenk*. 128: 319-326.
2. **Theriot, E.**, and E.F. Stoermer. 1982. Observations on North American populations of *Stephanodiscus* (Bacillariophyceae) species attributed to Friedrich Hustedt. *Trans. Amer. Microsc. Soc*. 101: 368-374.
1. **Theriot, E.**, and E.F. Stoermer. 1981. Some aspects of morphological variation in *Stephanodiscus niagarae* (Bacillariophyceae). *J. Phycol.* 17: 64-72.

VI.B. Peerless Publications

1. **Theriot, E.C.**, A.E. Bogan, and E.E. Spamer. 1997. The taxonomy of Barney: evidence of convergence in hominid evolution. In: Marc Abrahams (ed.), *The Best of Annals of Improbable Research* (AIR). W.H. Freeman and Co., New York. pp. 107-112
2. **Theriot, E.C.**, A.E. Bogan, and E.E. Spamer. 1995. The taxonomy of Barney: evidence of convergence in hominid evolution. *Annals of Improbable Research* 1: 3-7.

VI.C. Major Reports and Environmental Impact Statements

6. Theriot, E. and S. Fritz. 1993. An analysis of long-term limnological data from the larger lakes of Yellowstone National Park. US Fish and Wildlife Service. Yellowstone National Park, Mammoth, Wyoming.
5. Fryxell, G.A., **E.C. Theriot**, and K.R. Buck. 1984. Antarctic phytoplankton, ice algae, and choanoflagellates from Ameriez, the South Atlantic, and the Indian Oceans. *Antarctic J. of the U.S.* 19: 107-109.
4. Fryxell, G.A., K.R. Buck, and **E.C. Theriot**. 1983. Antarctic phytoplankton from the southwestern Atlantic and Indian Oceans. *Antarctic J. of the U.S.* 18: 186-188.
3. Stoermer, E.F., and E. Theriot. 1983. Phytoplankton composition and distribution in Saginaw Bay. Final Report to U.S. Environmental Protection Agency. 199 pp..
2. Theriot, E., L. Sicko-Goad and E.F. Stoermer. 1979. Observations on the valve morphology of *Stephanodiscus niagarae* Ehr. (Centrales, Bacillariophyta). *Micron* 10: 217-218.
1. Stone, J.H., N.A. Drummond, L. Cook, **E.C. Theriot** and D.M. Lindstedt. 1980. Distribution and abundance of the plankton of Lake Pontchartrain, Louisiana, 1978, pp. 437-590. In *Environmental Analysis of Lake Pontchartrain, Louisiana, and its surrounding wetlands and selected land uses*. J.H. Stone (ed). Coastal Ecology Laboratory, Center for

Wetlands Resources, Louisiana State University, Baton Rouge. LSU-CEL-80-08. 1,219 pp.

VI.D. Book Reviews

3. Theriot, E. 1992. The Diatoms. Biology and Morphology of the Genera. F.E. Round, R.M. Crawford and D.G. Mann. 1990. Cambridge University Press, Cambridge. 747 pp. $250.00. (cloth) ISBN 0-521-36318-7. *Systematic Biology* 41:125-126.
2. Håkansson, H. and E. Theriot. 1989. Review. Rolf Klee & Christian Steenberg. Kieselalgen bayrischer Gewässer Loseblattsammlung. Informationsberichte Bayrisches Landesamt für Wasserwirtschaft 4/87, München 1987. ISSN 0176-4217. *Diatom Research* 4:163-164.
1. Kociolek, J.P. and **E.C. Theriot**. 1986. Morphology, taxonomy and inter-relationships of the ribbed araphid diatoms from the genera *Diatoma* and *Meridion* (Diatomaceae: Bacillariophyta). By D.M. Williams. J. Cramer, Vaduz. (Bibliotheca Diatomologica, Band 8). 228 pp., 27 plates (186 figures), 4 text figures. 1985. Price 80DM. *Phycologia* 25: 585-586.

VII. Graduate Students Supervised.

VII.A. Students at University of Texas for whom I served as Major Advisor

Laurel Hartung. Plant Biology Graduate Program. M.A. Report: *Intragenomic Polymorphic DNA in the Freshwater Thalassiosiraceae (Bacillariophyta).* 2000.

Stacy Edgar. Plant Biology Graduate Program. Ph.D. thesis title: *Genetic and environmental control of morphology of the diatom Aulacoseira granulata.* 2003.

Roshan Roy. Zoology Graduate Program. Ph.D. thesis title: *Turf Algal/Sediment (TAS) Mats: A Chronic Stressor on Scleractinian Corals in Akumal, México.* 2004.

Andrew Alverson. Plant Biology Graduate Program. Ph.D. thesis title: *Phylogeny and evolutionary ecology of the thalassiosiroid diatoms.* 2006.

Elizabeth Davis Bowles. Department of Botany. Ph.D. thesis title: *Co-existence in phytoplankton: an examination of Hutchinson's solutions to the "paradox of the plankton."* 2006.

Elizabeth C. Ruck. Plant Biology Graduate Program. Ph.D. thesis title: *Phylogenetic systematics of the canal raphe bearing orders Surirellales and Rhopalodiales (Bacillariophyta)*. 2010.

Matthew P. Ashworth. Plant Biology Graduate Program. Ph.D. thesis title: *Rock snot in the age of transcriptomes: Using a phylogenetic framework to identify genes involved in diatom extracellular polymeric substance-secretion pathways*. 2013.

Teofil Nakov. Plant Biology Graduate Program. Ph.D. thesis title: *Studies of phylogenetic relationships and evolution of functional traits in diatoms.* 2014.

VII.B. Students at University of Texas for whom I served as Committee Member

Erika N. Schwarz. Plant Biology. 2016. RK Jansen, major advisor.

David Nobles. Plant Biology. Ph.D. thesis topic: *Cellulose in the cyanobacteria*. 2006. Malcolm Brown, major advisor. .

Laura Corinna. Plant Biology. Ph.D. thesis topic: *Site-directed mutagenesis of homing endonuclease I-*Cre*II from the* psb*A gene of* Chlamydomonas reinhardtii. 2005. David Herrin, major advisor.

VII.C. Students at other universities (served as committee member)

Sebastian Interlandi. Department of Bioscience and Biotechnology. Drexel University. Ph.D. thesis project: *Diatom ecology of large lakes in Yellowstone National Park.* Degree received in 2001.

Heuichan Roh. Department of Bioscience and Biotechnology. Drexel University. Ph.D. thesis project: *Experimental analysis of resource competition among dominant plankton diatoms from large lakes of the Yellowstone region*. Degree received in 2001.

Jan E.B. Rines, Dept. Oceanography, U. Rhode Island. Ph.D. Project: *Systematics, distribution and ecology of the marine diatom genus* Chaetoceros *(Bacillariophyceae).* Degree received in 1994.

Thomas Kantz, Dept. Botany, LSU, Baton Rouge. Ph. D. Project: *Algal molecular systematics*. Degree received in 1992.

Frederick Zechman, Dept. Botany, LSU, Baton Rouge. Ph. D. Project: *Algal molecular systematics*. Degree received in 1992.

Hedy Kling, Dept. of Botany, University of Manitoba, Winnipeg. M.S. thesis project: *Taxonomy of the diatom* Cyclotella bodanica. Degree received in 1998.

VIII. University of Texas at Austin Service

2001. Outstanding Dissertation Awards Selection Committee 2000-2001. Area D: Biological and Life Sciences. Chair: Dr. Rueben Gonzales.

IX. College of Natural Sciences Service

2018 – Present, Chair, Plant Biology Graduate Studies Committee.
1997 – Present, Director, Texas Memorial Museum.
2010. Organized Research Unit Internal Review Committee, Plant Resource Center, Chair.
2003, 2006. UT Representative for Organized Research Unit External Review Committee, UTEX Algal Culture Collection.
2002. Organized Research Unit Internal Review Committee, UTEX Algal Culture Collection, Dr. David Hillis, Chair.
2001. Organized Research Unit Review Subcommittee for Review of the Marine Science Institute 2001. Dr. Paul Stoffa, Chair.

X. Department of Integrative Biology Service

2015 – Present. Fund-raising Committee
2008 – Present. Director, Texas Ecolab.
2008. Promotion Review Committee for Dr. Robin Gutell. Dr. David Hillis, Chair.
2001. Post-tenure Review Committee. Dr. David Crews, Chair.
2000. Compensation Review Committee. Dr. Michael Ryan, Chair.