

MARK E. SIDDALL
CURATOR AND PROFESSOR
SACKLER INSTITUTE OF COMPARATIVE GENOMICS

HIGHEST DEGREE EARNED

Ph.D.

AREA OF SPECIALIZATION

Annelid phylogeny, microbial symbioses; evolution of anticoagulation

EDUCATIONAL EXPERIENCE

Ph.D. in Zoology, University of Toronto, Toronto, Canada, 1994

M.Sc. in Zoology, University of Toronto, Toronto, Canada, 1991

B.Sc. in Microbiology, University of Toronto, Toronto, Canada, 1989

PREVIOUS EXPERIENCE IN DOCTORAL EDUCATION

FACULTY APPOINTMENTS

Adjunct Faculty, Columbia University, 2001-present

Adjunct Faculty, City University of New York, 2000-present

Assistant Professor-Michigan Fellow, University of Michigan, Ann Arbor, MI, 1996-1999

Adjunct Faculty, College of William and Mary, Williamsburg, VA , 1994-1996

COURSES TAUGHT

Phylogenetics for biomedicine, NIH/NIAID, Bethesda, MD, 2006.

Cospeciation and Biogeographic Analysis, College of William and Mary, 2005.

Digital Imaging in Biology, Berkeley University, Berkeley, CA 2002.

Advanced Methodological Phylogenetics. Univ. of the Basque Country, Bilbao, Spain 2000

Biology of Sex, University of Michigan, Ann Arbor, MI, 1998

Phylogenetics-Just Methods, College of LS&A, University of Michigan, Ann Arbor, MI, 1998-1999

Phylogenetic Systematics, College of LS&A, University of Michigan, Ann Arbor, MI, Fall 1996

Molecular Ecology of Marine Symbioses, Bermuda Biological Station for Research, Bermuda, 1995

Phylogeny and Macroevolution, School of Marine Science, College of William and Mary, 1995

GRADUATE ADVISEES

Sebastian Kvist, Richard Gilder Graduate School, 2008-present

Anna Jane Phillips, City University of New York, 2006-present

Alejandro Ocegueda, City University of New York, 2006-present

Frank Fontanella, City University of New York, 2005-present

Linda Gormezano, City University of New York, 2005-present

Megan Cevasco, City University of New York, 2003-2008
Elizabeth Borda, City University of New York, 2002-2007
Kathleen Apakupakul, University of Michigan, 1997-1998
Brenda S. Flores, College of William and Mary, 1995-1996

GRADUATE COMMITTEES

Mark Weckel, City University of New York, 2007-present
Diana Belanger, City University of New York, 2006-present
Maria Theresa Aguado, UAM, Madrid, 2008.
Julianne Williams, College of William and Mary, 2005
Indra Neil Sarkar, Columbia University, 2004
Vincent Roussett, Museum d'Histoire Naturelle, Paris, 2004

RESEARCH GRANT SUPPORT

FEDERAL SOURCES

2007 **National Science Foundation, DEB-0640463**, REVSYS - Systematics of medicinal leeches (Hirudinidae): Building on the legacy of PEET (\$240,000, 36 mo)

National Science Foundation, REU Site: Systematics and Evolutionary Biology: A Continuing Program of Undergraduate Research at the American Museum of Natural History, New York City, \$425,305, June 6, 2004-May 31, 2009.

National Institutes of Health, Genetic Transfer in the Evolution of Infectious Disease, co-PI, Robert DeSalle, \$936,149, February 1, 2002-January 31, 2006.

National Science Foundation, PEET: Monography of the Families of Hirudinea (Leeches) with Online Databasing and Development of Electronic Keys: A Program to Train the Hirudinologists of the Future, \$741,576, January 1, 2002-December 31, 2008.

NON-FEDERAL SOURCES

2008 **National Evolutionary Synthesis Center (NESCent)**– A working group for Analytical Historical Biogeography.

Richard Lounsberry Foundation, Evaluating DNA Barcoding, \$325,000, 2004-2006.

RECENT ARTICLES IN REFEREED JOURNALS (2003-2008)

Rousset, V., Plaisance, L., Erséus, C., Siddall, M. E., and Rouse, G.W. Evolution for habitat preference in Clitellata (Annelida). *Biological Journal of the Linnaean Society In Press*

Laufer, A., Siddall, M. E., and Graf, J. 2008. Characterization of the Digestive-Tract Microbiota of *Hirudo orientalis*, a European Medicinal Leech. *Appl. Environmental Microbiology* 74: 6151-6154

Oceguera-Figueroa, A., and Siddall, M.E. 2008. *Placobdella lamothei* (Hirudinea: Glossiphoniidae), a new leech parasite of freshwater turtles from Mexico. *Rev. Mexicana de Biodiversidad*. 79: 135S- 139S

Fontanella, F. F, C. R. Feldman, M. E. Siddall, and F. T. Burbrink. 2008. Phylogeography of *Diadophis punctatus*: extensive lineage diversity and repeated patterns of historical demography in a trans-continental snake. *Molecular Phylogenetics and Evolution*, 46:1049-70

- Borda, E., Ocegüera, A., and Siddall, M.E. 2008. On the evolution, classification and biogeography of some haemadipsoid leeches (Hirudinida: Arhynchobdellida: Hirudiniformes). *Molecular Phylogenetics and Evolution*, 46:142-54
- Aguado, M.T., Nygren, A. and Siddall, M.E. 2007. Phylogeny of Syllidae (Polychaeta) based on combined molecular analysis of nuclear and mitochondrial genes. *Cladistics* 23: 552-564.
- Siddall ME, Trontelj P, Utevsky SY, Nkamany M, Macdonald III, KS. 2007. Diverse molecular data demonstrate that commercially available medicinal leeches are not *Hirudo medicinalis*. *Proc R Soc Lond B Biol Sci* 274:1481-1487
- Siddall, M. E., Worthen, P. L. , Johnson, M., and Graf, J. 2007. Novel role for *Aeromonas jandaei* as digestive-tract symbiont of North American medicinal leeches. *Applied environmental Microbiology*, 73: 655-658
- Hughes, J.L., and M.E. Siddall. 2007. A new species of leech from the New York Metropolitan Area. *American Museum Novitates* 10:10-10.
- Rousset, V., F. Pleijel, G.W. Rouse, C. Erseus, and M.E. Siddall. 2007. A molecular phylogeny of annelids. *Cladistics* 23: 41-63.
- Siddall, M.E., P.L. Worthen, M. Johnson, and J. Graf. 2007. Novel role for *Aeromonas jandaei* as digestive-tract symbiont of North American medicinal leeches. *Applied Environmental Microbiology* 73: 655-658.
- Siddall, M.E., P. Trontelj, S.Y. Utevsky, M. Nkamany, and K.S. Macdonald. 2007. Diverse molecular data demonstrate that commercially available medicinal leeches are not *Hirudo medicinalis*. *Proceedings of the Royal Society of London, Series B, Biological Sciences* 27: 1481-7.
- Siddall, M.E., A.E. Bely, and E. Borda*. 2006. Chapter 9: Reproductive Biology and Phylogeny of Annelida. In G. Rouse and F. Pliejel (editors), *Hirudinida*, 393-429 Enfield, NH: Science Publishers
- Siddall, M. E., and M.T. Aguado. 2006. Molecular phylogenetic evidence of a haplosporidian parasite infecting the polychaete *Syllis nipponica* (Imajima, 1966). *Parasitology Research* 99: 309-12
- Siddall, M.E., and J. Bowerman. 2006. A new species of leech, *Placobdella burresonae* N. Sp. (Annelida: Hirudinida: Glossiphoniidae) from *Rana pretiosa* (Amphibia: Ranidae) in Oregon. *Journal of Parasitology* 92: 855.
- DeSalle, R. M.G. Egan, and M. Siddall. 2005. The unholy trinity: taxonomy, species delimitation and DNA barcoding. *Philosophical Transactions of the Royal Society, London - Biological Sciences*, 360: 1905 – 1916.
- Ocegüera-Figueroa, A., V. León-Règagnon, and M.E. Siddall. 2005. Phylogeny and revision of Erpobdelliformes (Annelida, Arhynchobdellida) from Mexico based on nuclear and mitochondrial gene sequences. *Revista Mexicana de Biodiversidad* 76: 191-198.
- Phillips, A.J. and M.E. Siddall. 2005. Phylogeny of the New World medicinal leech family Macrobodellidae (Oligochaeta: Hirudinida: Arhynchobdellida). *Zoologica Scripta* 34: 559-564.
- Perkins, S. L., Budinoff, R. B., and Siddall, M. E. 2005. New gammaproteobacteria associated with bloodfeeding leeches and a broad phylogenetic analysis of leech endosymbionts. *Applied Environmental Microbiology*, 71: 5219-5224.

- Siddall, M.E., R.B. Budinoff, and E. Borda. 2005. Phylogenetic evaluation of systematics and biogeography of the leech family Glossphoniidae. *Invertebrate Systematics*, 19: 105-112.
- Siddall M.E. and R.B. Budinoff. 2005. DNA-barcoding evidence for widespread introductions of a leech from the South American *Helobdella triserialis* complex. *Conservation Genetics*. 6: 467-472.
- Siddall, M. E., A.E. Bely, and E. Borda. 2005. Hirudinida. Chapter 9: Reproductive Biology and Phylogeny of Annelida, Rouse, G and Pleijel, F (eds.) Enfield, New Hampshire. Pp. 393-429.
- Siddall, M. E. 2005. Bracing for another decade of deception: The Promise of Secondary BPA. *Cladistics*. 21: 90 – 99.
- Borda, E. and M. E. Siddall. 2004. Review of the evolution of life history strategies and phylogeny of the Hirudinida (Annelida: Oligochaeta). *Lauterbornia* 52: 5-25.
- Borda, E. and M. E. Siddall. 2004. Arhynchobdellida (Annelida: Oligochaeta: Hirudinida): Phylogenetic Relationships and Evolution. *Mol. Phylog. Evol.* 30: 213-225.
- Budinoff, R.B., A.M. Siddall, and M.E. Siddall. 2004. Twelve variable microsatellite loci for the North American medicinal leech, *Macrobdella decora*. *Mol Ecol Notes* 4: 491-493.
- Pol, D., M. A. Norell, and M. E. Siddall. 2004. Measures of stratigraphic fit to phylogeny and their sensitivity to tree size, tree shape, and scale. *Cladistics*, 20: 64-75.
- Reece, K. S., M. E. Siddall, N. A. Stokes, and E. M. Bureson. 2004. Molecular Phylogeny of the Phylum Haplosporida Based on Two Independent Gene Sequences. *Journal of Parasitology*, 90: 1111-1122.
- Rousset, V., G.W. Rouse, M.E. Siddall, A. Tillier, and F. Pleijel. 2004. The phylogenetic position of Siboglinidae (Polychaeta, Annelida), inferred from 18S rRNA, 28S rRNA, and morphological data. *Cladistics*, 20: 518 –533.
- Siddall, M.E. 2004. Fallacies of False Attribution as the Defense of BPA by Brooks Dowling, van Veller, and Hoberg. *Cladistics* 20: 376-377.
- Siddall, M. E. and E. Gaffney. 2004. Observations on the Leech *Placobdella ornata* Feeding from Bony Tissues of Turtles. *Journal of Parasitology*. 90: 1186-1188.
- Siddall, M. E. and E. Borda. 2004. Leech collections from Chile Including two new species of *Helobdella*. *American Museum Novitates*, 3457.
- Westergren, S. and M. E. Siddall. 2004. Two new Species of Salifid Leeches (Arhynchobdellida: Erpobdelliformes: Salifidae) from South Africa and Madagascar. *American Museum Novitates*, 3457.
- Siddall, M. E. and S. L. Perkins. 2003. Brooks Parsimony Analysis: A valiant failure. *Cladistics* 19: 554-564.
- Siddall, M. E., S. L. Perkins, and S. S. Desser. 2003. Leech mycetome endosymbionts are a new lineage of alphaproteobacteria related to the Rhizobiaceae. *Mol. Phylog. Evol.* 30: 178-186.
- Siddall, M. E. and K. Jensen. 2003. Incorrect evaluation of the information content of multistate characters. *Cladistics*, 19: 269-272.

SPECIAL RECOGNITION/AWARDS

Henry Baldwin Ward Medal, American Society of Parasitologists, 2002

Sokol Award for post-doctoral research, University of Michigan, 1998

Fellow of the Michigan Society, University of Michigan, 1996

Clark P. Read New Investigator Award, American Society of Parasitologists, 1995