

Curriculum Vitae

William H. Piel

September 2014

Assistant Professor, Life Sciences
Yale-NUS College
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Education

1997 Ph.D. Organismic & Evolutionary Biology, Harvard University.

1989 B.A. Biology, Cornell University.

Research Interests

- Bioinformatics of Specimens, Taxonomy, Sequences, Phylogenies
- Phyloinformatics, Systematics, Evolution
- Arachnology, Araneology, Behavioral Ecology, Natural History

Employment

- 2012-present, Assistant Professor of Life Sciences, Yale-NUS College
- 2011-present, Treasurer, Phyloinformatics Research Foundation, Inc.
- 2010-2011, Executive Director, Phyloinformatics Research Foundation, Inc.
- 2009-2012, Cryogenic Collection Manager, Peabody Museum of Natural History, Yale University
- 2006-2013, Director of Informatics, Peabody Museum of Natural History, Yale University
- 2002-2009, Research Assistant Professor, Department of Biological Sciences, University at Buffalo
- 2000-2001, Research Consultant, molecular systematics, Netherlands National Museum of Natural History
- 1999-2001, Post-Doc/UD in molecular systematics at the EEW, Leiden University, Netherlands
- 1998, Post-Doc at the Harvard University Herbaria developing TreeBASE, Cambridge MA
- 1997, Lecturer in Animal Behavior, Harvard University, Cambridge MA
- 1990-1997, Teaching Fellow, Organismic & Evolutionary Biology, Harvard University, Cambridge MA

Awards and Fellowships

- 1998. Certificate of Distinction in Teaching, Harvard University

- 1998. Putnam Research Grant (\$5,700)
- 1997. Sigma Xi Procter Prize Award (\$5,000)
- 1996. First Place, Student Paper Competition, Meeting of the American Arachnological Society, Tucson Arizona
- 1994. Putnam Research Grant (\$3,000)
- 1994. Innovation in Teaching Grant (with N. E. Pierce; \$10,000)
- 1992. Fundacion Capacitar Research Grant (\$3,000)
- 1991. Richmond Fund Research Grant (\$2,000)
- 1991. An Wang Graduate Fellowship
- 1990. An Wang Graduate Fellowship
- 1989. Department Fellowship
- 1988. Highlands Scholarship
- 1987. Cornell University Dean's List

Publications in Prep

1. Piel, W.H. , J. Auman, L. Chan, M. J. Dominus, V. Gapeyev, Y. Guo, H. Lapp, J. Ruan, H. Shyket, R. A. Vos, and V. Tannen. In Prep. TreeBASE v2: A Database of Phylogenetic Knowledge.

Peer-Reviewed Publications

2. Lamanna, C., B. Blonder, C. Violle, N. J. B. Kraft, B. Sandel, I. Símová, J. C. Donoghue II, J.-C. Svenning, B. J. McGill, B. Boyle, V. Buzzard, S. Dolins, P. M. Jørgensen, A. Marcuse-Kubitza, N. Morueta-Holme, R. K. Peet, W. H. Piel, J. Regetz, M. Schildhauer, N. Spencer, B. Thiers, S. K. Wisser, and B. J. Enquist. 2014. Functional trait space and the latitudinal diversity gradient. *Proc. Natl. Acad. Sci. U. S. A.*, 111(38): 13745-13750.
3. Oliver, J. C., J. M. Beaulieu, L. F. Gall, W. H. Piel, and A. Monteiro. 2014. Nymphalid eyespot serial homologs originate as a few individualized modules. *Proceedings of the Royal Society of London B*, 281: 20133262. doi:10.1098/rspb.2013.3262
4. Lyubetsky, V., W. H. Piel, and D. Quandt. 2014. Current Advances in Molecular Phylogenetics. *BioMed Research International*, 2014(596746): 2. doi: 10.1155/2014/596746.
5. Boyle, B., Z. Lu, N. Hopkins, Z. Y. Lu, J. A. R. Garay, D. Mozzherin, T. Rees, N. Matasci, M. L. Narro, W. H. Piel, S. J. Mckay, S. Lowry, C. Freeland, R. K. Peet, and B. J. Enquist. 2013. The taxonomic name resolution service: an online tool for automated standardization of plant names. *BMC Bioinformatics*, 14(16). doi: 10.1186/1471-2105-14-16
6. Uhen, M., A. D. Barnosky, B. Bills, J. Blois, M. T. Carrano, M. A. Carrasco, G. M. Erickson, J. T. Eronen, M. Fortelius, R. W. Graham, E. C. Grimm, M. A. O'Leary, A. Mast, W. H. Piel, P. D. Polly, and L. K. Salla. 2012. From card catalogs to computers: Databases in vertebrate paleontology. *Journal of Vertebrate Paleontology*, 33(1): 13-28.

7. Oliver, J. C., X.-L. Tong, L. F. Gall, W. H. Piel and A. Monteiro. 2012. A single origin for nymphalid butterfly eyespots followed by widespread loss of associated gene expression. *PLoS Genetics*, 8(8): e1002893. doi:10.1371/journal.pgen.1002893
8. Goff, S. A. *et al.* (57 authors). 2011. The iPlant Collaborative: Cyberinfrastructure for Plant Biology. *Frontiers in Plant Genetics and Genomics*, 2(34): 1-16.
9. Kettner C, Field D, Sansone SA, Taylor C, Aerts J, Binns N, Blake A, Britten CM, de Marco A, Fostel J, Gaudet P, González-Beltrán A, Hardy N, Hellemans J, Hermjakob H, Juty N, Leebens-Mack J, Maguire E, Neumann S, Orchard S, Parkinson H, Piel W, Ranganathan S, Rocca-Serra P, Santarsiero A, Shotton D, Sterk P, Untergasser A, and PL Whetzel. 2010. Meeting Report from the Second "Minimum Information for Biological and Biomedical Investigations" (MIBBI) workshop. *Standards in Genomic Sciences*, 3(3): 259-66.
10. Jordan, G. E. and W. H. Piel. 2008. PhyloWidget: Web-based Visualizations for the Tree of Life. *Bioinformatics*, 24(14): 1641-1642, doi:10.1093/bioinformatics/btn235.
11. Lapp, H., S. Bala, J. Balhoff, A. Bouck, N. Goto, M. Holder, R. Holland, A. Holloway, T. Katayama, P. O. Lewis, A. Mackey, B. I. Osborne, W. H. Piel, S. L. Kosakovsky Pond, A. Poon, W.-G. Qiu, J. E. Stajich, A. Stoltzfus, T. Thierer, A. J. Vilella, R. A. Vos, C. M. Zmasek, D. Zwickl, and T. J. Vision. 2007. The 2006 NESCent Phyloinformatics Hackathon: A field report. *Evolutionary Bioinformatics Online*. 3: 357-366
12. Herbert, K.G., J. Spirollari, J. T. L. Wang, W. H. Piel, J. Westbrook, W. C. Barker, Z. Z. Hu and C. H. Wu. 2007. "Bioinformatic Databases." In Craig, C. ed., *Encyclopedia of Computer Science and Engineering*, John Wiley & Sons, Ltd.
13. Zhang, S., K. G. Herbert, J. T. L. Wang, W. H. Piel, and D. R. B. Stockwell. 2006. PhyloMiner: A Tool for Evolutionary Data Analysis. *Proceedings of the 18th International Conference on Scientific and Statistical Database Management*, Vienna, Austria.
14. Almon, R. R., D. C. DuBois, J. Y. Jin, Z. Yao, A. Hazra, M. Samtani, G. Snyder, W. H. Piel, and W. J. Jusko. 2006. Development, analysis and use of pharmacogenomic time series for pharmacokinetic/pharmacodynamic modeling of multi-tissue polygenic responses to corticosteroids. In: *New Research on Pharmacogenetics*, Chpt. 2, ed. L. P. Barnes. New York: Nova Biomedical Books, 1 edition.
15. Wang, J. T. L., H. Shan, D. Shasha and W. H. Piel. 2005. Fast Structural Search in Phylogenetic Databases. *Evolutionary Bioinformatics Online*, 1: 37-46.
16. Chen, B., W. H. Piel, L. Gui, E. Bruford, and A. Monteiro. 2005. The HSP90 family of genes in the human genome: insights into their divergence and evolution. *Genomics*, 86(6): 627-637. doi:10.1016/j.ygeno.2005.08.012
17. Herbert, K. G., J. T. L. Wang, S. Pusapati, and W. H. Piel. 2005. Lineage path integration for phylogenetic resources. *Proceedings of the 17th International Conference on Scientific and Statistical Database Management*, pp. 117-120, Santa Barbara, California.
18. Uit de Weerd, D. R., E. Gittenberger, W. H. Piel. 2004. Widespread polyphyly among Alopiniinae snail genera: when phylogeny mirrors biogeography more closely than morphology. *Molecular Phylogenetics and Evolution*, 33(3): 533-548. doi:10.1016/j.ympev.2004.07.010
19. Almon R. R., D. C. DuBois, W. H. Piel, and W. J. Jusko. 2004. The Genomic Response of Skeletal Muscle to Methylprednisolone using Microarrays: Tailoring Data Mining to the Structure of the Pharmacogenomic Time Series. *Pharmacogenomics*, 5: 525-552. doi: 10.1517/14622416.5.5.525

20. Herbert, K. G., N. H. Gehani, W. H. Piel, J. T. L. Wang, C. H. Wu. 2004. BIO-AJAX: An Extensible Framework for Biological Data Cleaning. *SIGMOD Record*, 33(2): 51-57.
21. Megens, H.-J., C. H. M. van Moorsel, W. H. Piel, N. E. Pierce, and R. de Jong. 2004. Tempo of Speciation in a Butterfly Genus from the Southeast Asian Tropics, Inferred from Mitochondrial and Nuclear DNA Sequence Data. *Molecular Phylogenetics and Evolution*, 31: 1181-1196.
22. Taylor, D. J. and W. H. Piel. 2004. An Assessment of Accuracy, Error, and Conflict with Support Values from Genome-Scale Phylogenetic Data. *Molecular Biology and Evolution*. 21(8): 1534-1537. doi:10.1093/molbev/msh156
23. Gittenberger, E., W. H. Piel and D. Groenenberg. 2004. The Pleistocene glaciations and the evolutionary history of the polytypic snail species *Arianta arbustorum* (Gastropoda, Helicidae). *Molecular Phylogenetics and Evolution*, 30(1): 64-73. doi:10.1016/S1055-7903(03)00182-9
24. Wang, J. T. L., H. Shan, D. Shasha, and W. H. Piel. 2003. TreeRank: A Similarity Measure for Nearest Neighbor Searching in Phylogenetic Databases. *Proceedings of the 15th International Conference on Scientific and Statistical Database Management (SSDBM 2003)*, Cambridge, MA, pp. 171-180.
25. Piel, W. H., M. J. Sanderson, and M. J. Donoghue. 2003. The Small-World Dynamics of Tree Networks and Data Mining in Phyloinformatics. *Bioinformatics*, 19(9): 1162-1168. doi:10.1093/bioinformatics/btg131
26. Nakhleh, L., D. Miranker, F. Barbancon, W. H. Piel, and M. Donoghue. 2003. Requirements of phylogenetic databases. *Third IEEE Symposium on Bioinformatics and BioEngineering*, p. 141-148. doi:10.1109/BIBE.2003.1188940
27. Piel, W. H. 2003. "Phyloinformatics and Tree Networks." In: Wu, C. H., P. Wang, and J. T. L. Wang, eds. *Computational Biology and Genome Informatics*. World Scientific Press.
28. Shan, H., K. G. Herbert, W. H. Piel, D. Shasha and J. T. L. Wang. 2002. A Structure-Based Search Engine for Phylogenetic Databases. *Proceedings of the 14th International Conference on Scientific and Statistical Database Management (SSDBM 2002)*, Edinburgh, Scotland, pp. 7-10.
29. Krikken, J. and W. H. Piel. 2002. "Mining museum riches: an introduction to digital methods in the discovery of changes in the diversity and distribution of life on earth." Pp. 140-165. In: Meij, J., ed. *Dealing with the data flood: Mining data, text and multimedia*. Stichting Toekomstbeeld der Techniek Press, The Hague, Netherlands.
30. Piel, W. H., M. J. Donoghue, and M. J. Sanderson. 2002. "TreeBASE: a database of phylogenetic knowledge." Pp. 41-47. In: Shimura, J., K. L. Wilson, and D. Gordon, eds. *To the interoperable "Catalog of Life" — with partners Species 2000 Asia Oceanea*. Research Report from the National Institute for Environmental Studies No. 171, Tsukuba, Japan.
31. Piel, W. H. 2001. The systematics of Neotropical orb-weaving spiders in the genus *Metepeira* (Araneae: Araneidae). *Bulletin of the Museum of Comparative Zoology*, 157(1): 1-92.
32. Piel, W. H. and K. J. Nutt. 2000. One species or several? Discordant patterns of geographic variation between allozymes and mtDNA sequences among spiders in the genus *Metepeira* (Araneae: Araneidae). *Molecular Phylogenetics and Evolution*, 15(3): 414-418.

33. Piel, W. H. and K. J. Nutt. 1997. Kaira is a likely sister group to Metepeira, and Zygiella is an araneid (Araneae, Araneidae): Evidence from mitochondrial DNA. *Journal of Arachnology*, 25(3) : 262-268.
34. Piel, W. H. 1996. The ecology of sexual dimorphism in Metepeira (Araneae: Araneidae). *Swiss Biol. Rev.*, vol. hors serie (2): 523-529.
35. Piel, W. H. 1994. A new Chrosiothes spider from West Virginia (Araneae, Theridiidae). *Journal of Arachnology*, 22: 181-184.
36. Piel, W. H. 1991. The Nearctic jumping spiders of the genus Admestina (Araneae: Salticidae). *Psyche*, 98(4): 265-282.
37. Piel, W. H. 1991. Pycnogonid predation on nudibranchs and ceratal autotomy. *The Veliger*, 34(4): 366-367.
38. Piel, W. H. 1985. A note on the 'bouncing-effect' in orb- and funnel-weavers. *Newsl. Br. arachnol. Soc.*, 44: 5.

Active Software/Internet Contributions

- PhyloTiler: a scalable phylogeny navigator based on Google Maps technology with zoom-level-specific interactive content. Published on GitHub under the MIT open source license: <https://github.com/hshyk/PhyloTiler>
- iCBUG: Interactive Connecticut Butterfly Utility and Guide. Bringing the Peabody into Nature's Classroom: <http://www.icbug.org>
- TNRS: A Taxonomic Name Resolution Service, 2011-Present. Web site and API for resolving taxonomies and nomenclature of botanical names. Developed in PHP/MySQL. (<http://tnrs.iplantcollaborative.org/>)
- TreeBASE: A database of phylogenetic knowledge, 2010-present. Web submission and search interface with API and OAI-PMH services; developed in Spring/Hibernate/Java framework on PostgreSQL (<http://www.treebase.org>)
- PhyloWidget: Web-based Visualizations for the Tree of Life, 2007. Applet for tree visualization and editing. Piel was mentor to a Google Summer of Code student for this project. Developed in Java using Processing and JGraphT (<http://www.phylowidget.org>).
- Butterfly Wing Pattern Database, 2007 - Present. Database backed web interface for cataloging the diversity of wing patterns in butterflies. Developed in Perl CGI on MySQL using ImageMagick (<http://www.lepdata.org>).
- PhyloDB, 2006. Co-developed a phylogenetic extension on BioSQL (<http://www.biosql.org/wiki/Extensions>), allowing for the normalized storage of phylogenies in BioSQL and some primitive object-relational bindings.
- World Waterflea Specimen Database, 2003 - Present. Database backed web interface for managing the taxonomy, bibliography, and distribution of waterfleas. Developed in Perl CGI on MySQL using ImageMagick (<http://www.waterflea.org>).
- ISA 1999-present. Membership and payment database for the International Society for Arachnology. Developed initially in Filemaker, then redeveloped in Perl CGI (<http://www.arachnology.org>)

Inactive Software/Internet Contributions

- Prototype TNRS service for names on phylogenies, 2010 (http://arjuna.iplantcollaborative.org/test_name_resolution.html)
- Prototype DNA Barcode Search Engine, 2003. Tool for identifying species using a “DNA Barcode” segment of COI.
- Prototype Google Earth Phylogeny Visualization, 2006. Google Earth interface to draw georeferenced phylogenies in 3D.
- SeqTrac 1999-2001. An intranet lab management database of tissues, PCRs, and sequencing products developed in Filemaker.
- TreeBASE: A database of phylogenetic knowledge. 1995-2010. Developed in 4th Dimension.
- Hypsography 1996. For interconversion of lat/long tiles and elevation/depth information. Developed in Perl CGI.
- Project Ethos 1994-1996. Multimedia presentation software for a course in Animal Behavior. Developed in Macromedia Director.
- MCZ Invertebrate Type Collection 1993-2005. On-line database of type specimens for the Invertebrates Department, Museum of Comparative Zoology, Harvard University. Developed in Filemaker with web API.

Current Research Funding

- NSF: “ARTS: A cyber-enabled global monograph of *Viburnum* (Adoxaceae, Dipsacales).”: June 15 2012 - June 14 2015; \$500,227; Piel is co-PI with M. Dongohue.

Previous Research Funding

- NSF: “The evolution of serial homology: a case study with nymphalid butterfly eyespots.”: July 1 2008 - June 30 2012; \$540,000; Piel is co-PI with A. Monteiro.
- IMLS: “iCBUG (Interactive Connecticut Butterfly Utility and Guide): Bringing the Peabody into Nature's Classroom.”: August 1, 2010 - July 31 2012; Piel is PI. \$123,161.
- NSF: “A digital repository for preservation and sharing of data underlying published works in evolutionary biology”: June 1 2008 - August 31 2011; \$280,000; Piel is PI on subcontract from Duke University, K. Smith lead PI.
- NSF: iPlant: iPToL Grand Challenge subcontract: September 1 2009 - August 31 2011; \$234,000; Piel senior person, M. Donoghue lead PI.
- NSF ITR: Collaborative Research: “Building the Tree of Life: A National Resource for Phyloinformatics and Computational Phylogenetics”: 2003-2008; ~\$12 million; Piel's subcontract: ~\$300,000; 25 PIs, B. Moret and T. Warnow lead PIs.
- NIH SUPPLEMENT. “Corticosteroid Pharmacokinetics and Pharmacodynamics”: 2003-2005; ~\$150,000; Piel senior person; PIs: W. J. Jusko and R. Almon.
- NSF DEB: PEET. “Monography of the Bosminidae and Daphniidae”: 2004-2008; \$789,820; Piel co-PI with D. Taylor.
- NSF ATOL: Collaborative Research. Core Database Technologies to enable the Integration of AToL Information. 2006-2009; \$219,944; Piel co-PI with R. Beaman.
- EEW Equipment Grant. 2000. \$11,000; Piel co-PI with R. Zandee and E. van Batenburg

Invited Plenary Presentation

- Piel, W. H. 2007. "Phyloinformatics," Conference on Computational Phylogenetics and Molecular Systematics, Moscow State University, Russia. November 16-19.

Invited Presentations, Symposia, and Seminars

- Piel, W. H. 2009. "Phyloinformatics Analysis in SQL" Departmental seminar and day-long workshop, George Washington University. Washington DC, April 22-24.
- Piel, W. H. 2008. "Phyloinformatic Challenges and Obstacles," TDWG Conference, Perth Australia, October 20.
- Piel, W. H. 2008. "Phyloinformatic Research," Chongqing Normal University, China. May 16.
- Piel, W. H. 2008. "Phyloinformatic Research," Yangtze University, China. May 20.
- Piel, W. H. and H. Lapp. 2007. "Working with Trees in the Phyloinformatic Age," Phyloinformatics workshop, e-Science Institute, Edinburgh, Scotland. October 22-24.
- Piel, W. H. and R. D. M. Page. 2005. "Preparing Phylogenetic Data for Automated Supertree Construction," DFG-NSF Biodiversity Conference in Washington DC November 6-9 2005.
- Piel, W. H. and R. D. M. Page. 2004. "The Phyloinformatics of Mycological Data in TreeBASE," Mycological Society of America, July 18, Asheville, North Carolina.
- Piel, W. H. 2003. "Phyloinformatic Methods for Finding Stands in the Forest," Mathematical and Computational Aspects Related to the Study of the Tree of Life, Center for Discrete Mathematics & Theoretical Computer Science (DIMACS), March 13, Rutgers, New Jersey.
- Piel, W. H. 2000. "Towards a National Phyloinformatic Initiative" University of Amsterdam, November 30, The Netherlands.
- Piel, W. H. 2000. "How many trees would it take to build the tree of life?" Taxonomy Today conference, July 3-5, Reading, United Kingdom.
- Piel, W. H. 2000. "The 'Small-World' Dynamics of Building a Supertree Network." XIX Annual Meeting of the International Willi Hennig Society. May 28-June 2, Leiden, Netherlands.
- Piel, W. H., M. J. Donoghue, and M. J. Sanderson. 1999. "TreeBASE: a database of phylogenetic knowledge." Species Diversity Information Systems on the Internet, symposium, XVI International Botanical Congress, August 1-7, St. Louis, Missouri.
- Piel, W. H., M. J. Donoghue, and M. J. Sanderson. 1999. "TreeBASE: a database of phylogenetic knowledge." The 2nd International Workshop of Species 2000, July 14-16, Tsukuba, Japan.
- Piel, W. H. 1999. "TreeBASE: a database of phylogenetic knowledge." EEW Symposium on Biodiversity. February 18-19, Leiden, Netherlands.

Invited Workshops and Organizational Meetings

- 2012, November 27-30. NCEAS: The Botanical Information and Ecology Network (BIEN) workshop. Santa Barbara CA
- 2012, May 9-12. 2nd BioVeL Workshop on Taxonomic and Phylogenetic workflows. University of Gothenburg, Sweden.
- 2011, October 24-28. NCEAS: The Botanical Information and Ecology Network (BIEN) workshop. Santa Barbara CA
- 2011, October 17-21. TDWG: Minimum Information About a Phylogenetic Analysis (MIAPA) Standards Workshop. New Orleans, LA
- 2011, March 22-24. NSF-S2I2 Collections Digitization Workshop, Chicago IL
- 2011, February 2-4. NESCent Advisory Board Meeting, Durham NC
- 2010, December 12-14. Phyloinformatics Research Foundation Board Meeting, Durham NC
- 2010, December 5-11. NCEAS: The Botanical Information and Ecology Network (BIEN) workshop. Santa Barbara CA
- 2010, November 29-December 3. Minimum Information for Biological and Biomedical Investigations (MIBBI) Workshop. Rüdeshheim, Germany
- 2010, September 15-17. NESCent Advisory Board Meeting, Durham NC
- 2010, July 7-11. Map of Life Meeting. Boulder CO
- 2010, May 23-26. iPlant All Hands Meeting. Las Vegas NV
- 2010, April 28-May 30. Biological Collections Digitization Focus Meeting. Durham NC
- 2010, March 31-April 2 2010. iPlant-Tropicos TNRS Workshop. St. Louis, MO
- 2010, March 9-12. TreeBASE-Dryad Planning Meeting, Durham NC
- 2010, February 24-26. iPlant Tree Visualization Meeting, Austin TX
- 2010, February 5-8, NSF Digitization Planning Meeting, Durham NC
- 2009, December 8-11. NCEAS: The Botanical Information and Ecology Network (BIEN) workshop. Santa Barbara CA
- 2009, November 30-December 1. NSF Dimensions of Biodiversity Planning Meeting. Washington DC
- 2009, November 20-22. iPlant Organizational Workshop. Phoenix AZ
- 2009, November 5-12. Phyloinformatics VoCamp. Montpellier, France
- 2009, September 9-11. NESCent Advisory Board Meeting, Durham NC
- 2009, July 21-24. CIPRes All Hands Meeting, San Francisco CA
- 2009, May 30-June 4 eBiosphere. London, UK
- 2009. April 30-May 4 BioSync Tree Visualization Workshop. Chicago IL
- 2009. March 8-13. NESCent Database Interoperability Hackathon. Durham NC
- 2009, February 9-11. NESCent Advisory Board Meeting, Durham NC
- 2008, November 19-23. iPlant Organizational Meeting, Tucson AZ
- 2008, June 24-27. DNA Barcoding Workshop, San Diego CA

- 2008, April 18-21. BioSync Mega-phylogeny Assembly Workshop. Chicago IL
- 2008, April 7-9. iPlant Kickoff Meeting. Cold Spring Harbor, NY
- 2008, March 7-10 AToL PIs Meeting. New Orleans, LA
- 2007, December 3-6. EoL-Adobe Tree Visualization meeting. San Francisco, CA
- 2007, September 8-12. pPOD Workshop. Durham NC
- 2007, June 10-13. NESCent Plant Evolutionary Genomics Working Group. Durham NC
- 2007, May 29-June 1. ESA: Data Sharing Obstacles Workshop, Durham NC
- 2007, March 26-30. PEET IV Meeting, Athens GA
- 2007, February 1-2. NESCent Advisory Board Meeting, Durham NC
- 2006, December 11-15 NESCent Phyloinformatics Hackathon. Durham, NC
- 2006, December 8-9 NCEAS-ESA: Data Centers for Ecology, Evolution, and Organismal Biology Workshop. Santa Barbara, CA
- 2006, September 17-21. NESCent Plant EvoGenomics Working Group: Advancing Comparative Functional Genomics. Durham, NC
- 2005, May 31-June 3. Meta-Data Model Working Group Meeting. Wrightsville Beach, NC
- 2005, February 7-9. "Data Discovery in the Biological Sciences," University of New Mexico's Ecoinformatics Training and Software Usability Testing Laboratory, Albuquerque, NM
- 2004, September 27-29. ESA Ecology, Evolution, and Organismal Biology Societies Summit Meeting: Critical Steps Toward a Biological Data Systems Confederation. Washington DC
- 2004, September 10-11. "Biological Image Database Workshop," Florida State University, Tallahassee, FL
- 2004, February 9-11. "A Workshop on Establishing a Comprehensive Database for Plant Systematics," University of Florida, Gainesville, FL
- 2003, March. DIMACS Workshop: "Mathematical and Computational Aspects Related to the Study of the Tree of Life," Center for Discrete Mathematics & Theoretical Computer Science, Rutgers, NJ
- 2002, October. NSF workshop "Cyberinfrastructure for Environmental Research and Education." National Center for Atmospheric Research, Boulder, CO
- 2002, September. NSF workshop "National Ecological Observatory Network Information Management Workshop." National Center for Ecological Analysis and Synthesis, Santa Barbara, CA
- 2000, October. NSF workshop "Developing a National Phyloinformatic Initiative." University of California, Davis, CA
- 2000, July. NERC workshop "Taxonomy Today: Diversity & the Tree of Life." University of Reading, UK.
- 2000, May. Organized symposium: "Big trees and Supertrees." XIX International Willi Hennig Society Meeting. Leiden, Netherlands
- 1994, June. DOE/TIGR workshop "Database Interoperability." The Institute for Genomic Research, Gaithersburg, MD

Teaching Experience

- 2014, Fall. “Scientific Inquiry,” Yale-NUS College.
- 2013, Fall. “Scientific Inquiry,” Yale-NUS College
- 2012, Summer. Instructor and Director, “Computational Phyloinformatics,” Moscow State University, Russia.
- 2012, Summer. Instructor, “Phylogenetic Methods” KEMRI, Kilifi, Kenya.
- 2011, Summer. Instructor, “Computational Phyloinformatics,” Kyoto University, Japan.
- 2010, Summer. Instructor and Director, “Computational Phyloinformatics,” BGI-Shenzhen, Shenzhen, China.
- 2009, Summer. Instructor and Director, “Computational Phyloinformatics,” Gulbenkian Institute, Lisbon, Portugal.
- 2008, Summer. Instructor and Director, “Computational Phyloinformatics,” NESCent, Durham.
- 2007, Summer. Instructor and Director, “Computational Phyloinformatics,” NESCent, Durham.
- 2003, Spring. Instructor, "Bioinformatics," University at Buffalo
- 2002, Fall. Instructor, "Evolutionary Genetics," University at Buffalo
- 2002, Spring. Instructor, "Invertebrate Zoology," University at Buffalo
- 1999-2001. Guest Lecturer, "Molecular Laboratory Techniques," Leiden University
- 1997, Fall. Instructor, "Ethology," Harvard University
- 1992, Spring. Guest Lecturer, "Social Insects," Harvard University
- 1992-96, Fall. Head Teaching Fellow, "Ethology," Harvard University
- 1990-91, Fall. Teaching Fellow, "Invertebrate Zoology," Harvard University
- 1990-'94 Tutor in Biology, Mather House, Harvard College
- 1989, Fall. Teaching Fellow, "Organismic & Evolutionary Biology," Harvard University

Students

- 2011. Laurel Yohe, GSoC student, “Automated submission of rich data to TreeBASE” (Piel is secondary mentor)
- 2010. Kathryn Iverson, GSoC student, “Georeferencing Library Implemented in Java” (Piel was secondary mentor)
- 2007. Gregory Jordan, GSoC student, “PhyloWidget: Web-based Visualizations for the Tree of Life” (Piel was primary mentor)
- 1999-2004. Dennis Uit de Weerd, Ph.D. student, "Evolution of Mediterranean Clausilids (Mollusca: Gastropoda)"
- 1999-2000. Dick Groenenberg, M.Sc. student, "Phylogeography of Arianta (Mollusca: Gastropoda)"

Field Experience, Field Courses

- 2006. Expedition to Argentina, collecting Cladocera (NSF)
- 2005. Expedition to Arizona, collecting Cladocera (NSF)
- 2004. Expedition to California, collecting Cladocera (NSF)
- 2004. Expedition to Alberta, collecting Cladocera (NSF)
- 2003. Expedition to Alaska, collecting Cladocera (NSF)
- 1998. Expedition to Chile, collecting *Metepeira* spp. (Putnam)
- 1998. Expedition to Cameroon, collecting *Bicyclus* spp. (Milton)
- 1995. Expedition to Channel Islands, collecting *Metepeira* spp. (U.S. Navy, National Park Service, Barbour)
- 1994. Expedition to Central America, collecting *Metepeira* spp. (Putnam)
- 1994. Expedition to West Virginia, collecting *Chrosiothes* spp. (Northeastern Forest Experiment Station)
- 1992. Expedition to Ecuador, collecting *Metepeira* spp. (Fundacion Capacitar)
- 1992. "Molecular Evolution Workshop" Prof. M. Sogin, Woods Hole. Oceanographic Institute, Massachusetts.
- 1991. Expedition to Mexico and Belize, collecting *Metepeira* spp. (OEB Research Grant)
- 1990. "Marine Invertebrate Zoology" Profs. E. Ruppert & R. Fox, Harbor Branch Oceanographic Institute, Florida.
- 1989. "Field methods in animal behavior" Prof. T. Eisner. Archbold Biological Station, Florida. Cornell University.
- 1988. "Biology of Spiders" Profs. F. Coyle & W. Shear. Highlands Biological Station, North Carolina.

Service/Community

- 2014. Guest editor of *Current Advances in Molecular Phylogenetics (CAMP)*, of *BioMed Research International*.
- 2013. Guest editor of *Current Advances in Molecular Phylogenetics (CAMP)*, of *BioMed Research International*.
- 2011-13. Member of the Moderator Board for "PLoS Currents: Tree of Life"
- 2010. Founded the Phyloinformatics Research Foundation, Inc.
- 2006-2011. Reviewed Grant Proposals and served on the NSF NESCent Science Advisory Board, Durham NC
- 2006, May 6, Co-organized international conference, "Eastern Great Lakes Molecular Evolution Meeting," University at Buffalo, Buffalo, NY.
- 1994 - 1996. Faculty of Arts and Sciences Committee on Information Technology. Harvard University, Cambridge MA.

- 1993 - 1996. Vice President, Graduate Student Council, Harvard University, Cambridge Massachusetts.