HENRIETTE (YETTA) JAGER, Ph.D.
https://wordpress.com/view/jager540.wordpress.com

August 3, 2018

EDUCATION

PhD	2000, Ecology and Evolutionary Biology, University of Tennessee
MS	1984, Ecology University of Tennessee
BA	1979, Biology Franklin Pierce College, SUNY ESF

PROFESSIONAL EXPERIENCE

2015-Present	Senior scientist
2003-Present	Joint Faculty Associate, Ecology & Evolutionary Biology, University of Tennessee @ Knoxville
1988-2015	Staff scientist Environmental Sciences Division, Oak Ridge National Laboratory

PROFESSIONAL AFFILIATIONS

Natn'l Inst. of Mathematical & Biological Synthesis
Center for Bioenergy Sustainability (ORNL)
Climate Change Science Institute (ORNL)
Bredesen Center (University of Tennessee)
Int. Society of Landscape Ecologists
Ecological Society of America, AAAS
Amer. Fisheries Society (President-Elect, Water Quality Section 2017)

CONTACT INFORMATION

Environmental Sciences Division
Oak Ridge National Laboratory
Phone: 011-865-574-8143 (no voicemail)
E-mail: jagerhi at ornl.gov

My research seeks to understand trade-offs and complementarities among ecosystem services associated with renewable energy. For hydropower, individual-based and genetic population models estimate how aquatic biota respond to flow regimes, thermal regimes, ocean climate, hatcheries, and reconnection options. For bioenergy, our team uses watershed and Bio-EST species distribution modeling to design bioenergy systems to improve water quality & quantity and enhance biodiversity at regional and local scales. Similarly, we are evaluating opportunities for sustainable production of algae for biodiesel.

RESEARCH LEADERSHIP (PI)

2017-2020 Visualizing Ecosystem Service Portfolios of Agricultural and Forested Biomass Production Systems. DOE Bioenergy Technologies Office. Decision support to design forest treatments to benefit ESA-listed salmonids in the Wenatchee basin; Spatial optimization of Iowa fuelsheds to benefit pheasant and other wildlife; & valuation of ecosystem services associated with advanced bioenergy.

2016-2017. Model-guided conservation planning for fall Chinook salmon in the Middle Snake River. Idaho Power Company

2014-2017. Model-guided conservation planning for white sturgeon in the Middle Snake River. Idaho Power Company

2014-2016. SECURE Water Act Section 9505-2 Environmental Focus. DOE Wind and Waterpower (sub-PI)

2009-2016. Forecasting water quality and biodiversity, DOE Bioenergy Technologies Office

2006-2014. Population viability analysis of fall Chinook salmon in the Snake River, Idaho Power Company

2008-2011. CDFG San Joaquin River fall-run Chinook salmon production model refinement, California Department of Fish and Game

2006-2010. Population viability analysis of the endangered Shortnose sturgeon in the Ogeechee River, GA, DOD Strategic Environmental Research and Development Program.

2009-2010. Spatial modeling of geographic patterns in biodiversity and biofuel production, Oak Ridge National Laboratory, Lab Directed Research & Development Program

2000-2007. Population viability analysis of white sturgeon in the Snake River, Idaho Power Company

2005-2006. Testing and improvement of the ORCM Chinook salmon model, California Energy Commission Partnership in Energy Research Program

2001-2003. Conceptual population viability model for pallid sturgeon in the Missouri River, ORNL State Partnership Program

AWARDS, EDITORIAL AND SCIENTIFIC LEADERSHIP POSITIONS

Editorial Board, 'River Research and Applications' (2018-present)

Editorial Advisory Board, 'Ecological Complexity' – International Journal on Biocomplexity in the Environment & Theoretical Ecology (2017-present)
President-elect, Water Quality Section, American Fisheries Society
Editorial Board, 'Sustainability of Water Quality and Ecology' (2015-2017)
Distinguished Scientific Achievement (Auerbach) Award, Environmental Sciences Division, ORNL (2006)
DOE Outstanding Mentor Award (2006)
ORNL Technical Publication Award (2001) for Jager et al. 2000. Ecosystems 3: 396-411
Ecological Society of America, Southeast Chapter Secretary-Treasurer (2002-2004)
Associate Editor for the North American Journal of Fisheries Management (2001-2002)

PEER-REVIEWED PUBLICATIONS

Journal Articles

1. **Jager, HI**, AW King, S. Gangrade, A Haines, C DeRolph, BS Naz, M Ashfaq. In press 2018. Will future climate change increase the risk of violating minimum flow and maximum temperature thresholds below dams in the Pacific Northwest? Climate Risk Management https://doi.org/10.1016/j.crm.2018.07.001
2. Jager**, HI**, RA Novello, VH Dale, A Villnas, and KA Rose. Accepted 2018. Unnatural hypoxic regimes. Ecosphere.
3. Wang, G, **HI Jager**, LM Baskaran, CC Brandt. Online 2018. Water quantity and quality responses to biomass production in the Tennessee River Basin. Global Change Biology: Bioenergy.
4. Coutant, CC and **HI Jager**. 2018. In Memoriam Webster Van Winkle, Jr. Fish Population Modeler. Fisheries 43(6): 294-295.
5. **Jager, HI** and DL DeAngelis. 2018. The confluences of ideas leading to and the flow of ideas emerging from individual-based modeling of riverine fishes. Ecological Modelling 384: 341-352.
6. Dale, VD, **HI Jager**, AK Wolfe, and RA Efroymson. 2018. Risk and resilience in an uncertain world. Frontiers in Ecology and the Environment (Guest editorial). 16(1): 3-3.
7. **Jager, HI** and RA Efroymson. 2018. Biomass production mediates the flow of ecosystem goods and services downstream to the Gulf of Mexico. Special Issue. Biomass and Bioenergy 114: 125-131.
8. Ferguson, J, R Fletcher, BE Reichert, and **HI Jager.** 2017. Detecting population-environmental interactions with mismatched time series data. Ecology 98(11): 2813–2822
9. Forbes, V. **HI Jager** and 12 coauthors. 2017. A framework for predicting impacts on ecosystem services from (sub)organismal responses to chemicals. Environmental Toxicology & Chemistry 36(4). 845-859.
10. McManamay RA, Brewer SK, **Jager HI**, Troia MJ. 2016. Organizing Environmental flow frameworks to meet hydropower mitigation needs. Environmental Management: 1-21.
11. **Jager, HI**, MJ Parsley, JJ Cech, Jr., RL McLaughlin, PS Forsythe, RF Elliott, and BM Pracheill. 2016. Reconnecting fragmented sturgeon populations in North American rivers. Fisheries 41(3), 140-148.
12. **Jager, HI**, RA Efroymson, JJ Opperman, and MR Kelly. 2015. Spatial design principles for sustainable hydropower development in river basins. Renewable and Sustainable Energy Reviews 45: 808-816.
13. **Jager, HI**, LM Baskaran, PE Schweizer, A Turhollow, CC Brandt, and R Srinivasan. 2015. Forecasting changes in water quality in rivers associated with growing biofuels in the Arkansas-White-Red river drainage, USA. Global Change Biology: Bioenergy 7(4): 774-784.
14. **Jager, HI** and RA McManamay. 2014. Comment on ''Cumulative biophysical impact of small and large hydropower development in Nu River, China'' by Kelly Kibler and Desiree Tullos. Water Resources Research 50, 758–759.
15. **Jager, HI**. 2014. Thinking outside the channel: Timing pulse flows to benefit salmon via indirect pathways. Ecological Modelling 273: 117-127.
16. McManamay, RA, DJ Orth, & **HI Jager**. 2014. Accounting for variation in species detection in fish community monitoring. Fisheries Management and Ecology 21, 96–112.

17. Ridley, CE, **HI Jager**, RA. Efroymson, C Kwit, DA. Landis, ZH Leggett, DA Miller, CM Clark. 2013. Debate: Can bioenergy be produced in a sustainable manner that protects biodiversity and avoids the risk of invaders? Ecological Society of America Bulletin 94(3): 277-290.
18. **Jager, HI**, DL Peterson, D Farrae, & MS Bevelhimer. 2013. A population model to assess influences on the viability of the shortnose sturgeon (*Acipenser brevirostrum*) population in the Ogeechee River, Georgia. Transactions of the American Fisheries Society 142(3): 731-746.
19. Schweizer P & **HI Jager**. 2011. Modeling fish diversity in the Arkansas-Red-White River Basin. Transactions of the American Fisheries Society 140(5): 1227-1239. (http://dx.doi.org/10.1080/00028487.2011.618354)
20. **Jager, HI,** MS Bevelhimer, RL King, & KA Smith. 2011. Landscape influences on headwater streams on Fort Stewart, Georgia, USA. Environmental Management 4:795-807http://dx.doi.org/10.1007/s00267-011-9722-4
21. Perkins TA & **HI Jager.** 2011. A conditional strategy model accounts for spatiotemporal life history variation in Snake River fall Chinook salmon. Transactions of the American Fisheries Society 140(4): 959-972.
22. McBride AC, VH Dale, LM Baskaran, ME Downing, LM Eaton, RA Efroymson, CT Garten Jr, KL Kline, **HI Jager**, PJ Mulholland, ES Parish, PE Schweizer,& J.M. Storey. 2011. Indicators to support environmental sustainability of bioenergy systems. Ecological Indicators 11(5): 1277-1289.
23. **Jager HI,** KB Lepla, W Van Winkle, BA James, & SO McAdams. 2010. The elusive minimum viable population size for white sturgeon. Transactions of the American Fisheries Society 139: 1551-1565.
24. Baskaran, LM, **HI Jager**, PE Schweizer & R Srinivasan. 2010. Progress toward evaluating the sustainability of switchgrass production at a regional scale. American Society of Agricultural and Biological Engineers 53(5): 1547-1556.
25. **Jager HI**, LM Baskaran, CC Brandt, EB Davis, CA Gunderson & SD Wullschleger. 2010. Empirical geographic modeling of switchgrass yields in the United States. Global Change Biology: Bioenergy 2(5): 248-257.
26. Efroymson RA, **HI Jager**, VH Dale, J Westerveld. 2009. A framework for developing management goals for species at risk and application to military installations in the United States. Environmental Management 44(6): 1163-1179.
27. McCullough, DA, JM Bartholow, **HI Jager** and others. 2009. Research in thermal biology: Burning questions for coldwater stream fishes. Reviews in Fisheries Science 17(1): 90-115.
28. **Jager HI**, KA Rose, & A Vila-Gispert. 2008. Life history correlates and extinction risk of capital-breeding fishes. Hydrobiologia 602: 15-25.
29. **Jager HI** & BT Smith. 2008. Sustainable Reservoir Operation: Can we generate hydropower and preserve ecosystem values? River Research and Applications 24: 340-352.
30. **Jager HI** & MS Bevelhimer. 2007. How run-of-river operation affects hydropower generation. Journal of Environmental Management 40: 1004-1015.
31. **Jager HI** 2006. Chutes and ladders and other games we play with rivers: I. Simulated effects of upstream passage on white sturgeon. Canadian Journal of Fisheries and Aquatic Sciences 63: 165-175.
32. **Jager HI** 2006. Chutes and ladders and other games we play with rivers: II. Simulated effects of translocation on white sturgeon. Canadian Journal of Fisheries and Aquatic Sciences 63: 176-184.
33. **Jager HI**, EA Carr & RA Efroymson. 2006. Simulated effects of habitat loss and fragmentation on a solitary, mustelid predator. Ecological Modelling 91: 416-430.
34. **Jager HI.** 2005. Genetic and demographic implications of aquaculture on white sturgeon (*Acipenser transmonitanus*) conservation. Canadian Journal of Fisheries and Aquatic Sciences. 62(8): 1733-1745 Management, and Protection of Sturgeon, American Fisheries Society Symposium 28, American Fisheries Society, Bethesda, MD.
35. **Jager HI**, RA Efroymson, K. Sublette & T.A. Ashwood. 2005. Unnatural landscapes in ecology: Generating the spatial distribution of brine spills. Environmetrics 16: 687-698.
36. **Jager HI**, AW King, NH Schumaker, TL Ashwood & BL Jackson. 2005. Spatial uncertainty analysis of population models. Ecological Modelling 185(1): 13-27.
37. **Jager HI** & AW King. 2004. Spatial uncertainty and ecological models. Ecosystems 7: 1-7.

38. Sullivan, AB, **Jager HI** & R Myers. 2003. Modeling white sturgeon movement in a reservoir: The effect of water quality. Ecological Modelling 167(1-2): 97-114.
39. **Jager HI** & KA Rose. 2003. Designing optimal flow patterns for fall Chinook salmon recruitment in a Central Valley, California river. North American Journal of Fisheries Management 23: 1-21.
40. **Jager HI**, W Van Winkle, KA Lepla, JB Chandler, P Bates, & TD Counihan. 2002. Factors controlling white sturgeon recruitment in the Snake River. Pages 127--150 IN: W Van Winkle, PJ Anders, DH Secor, & DA Dixon, eds., Biology
41. **Jager HI.** 2001. Individual variation in life history characteristics can influence population extinction risk. Ecological Modelling 144(1): 59-74.
42. **Jager HI** & JA Tyler. 2001. Letter to the editor concerning Railsback et al. 1999. Movement rules for individual-based models of stream fish. Ecological Modelling 144(3): 245-248.
43. **Jager HI**, W Van Winkle, K Lepla, & J Chandler. 2001. A theoretical study of river fragmentation by dams and its effects on white sturgeon populations. Environmental Biology of Fishes 60: 347-361.
44. **Jager HI**, W Van Winkle, K Lepla, J Chandler, and P Bates. 2000. Population viability analysis of riverine fishes. Special issue of the Journal of Environmental Science and Policy 3: S483-489.
45. **Jager HI**, WH Hargrove, CC Brandt, AW King, RJ Olsen, JMO. Scurlock, & KA Rose. 2000. Constructive contrasts between modeled and measured climate responses over a regional scale. Ecosystems 3: 396-411.
46. **Jager HI**, W Van Winkle, & BD Holcomb. 1999. Would hydrologic climate changes in Sierra-Nevada streams influence trout persistence? Transactions of the American Fisheries Society 128: 222-240.
47. Suter, GW II, LW Barnthouse, RA Efroymson, & **HI Jager**. 1999. Ecological risk assessment in a large river-reservoir: 2. fish community. Environmental Toxicology and Chemistry 18(4): 589-598.
48. Van Winkle W, **HI Jager**, SF Railsback, BD Holcomb, TK Studley, & JE Baldrige. 1998. Individual-based model of sympatric populations of brown and rainbow trout for instream flow assessment: model description and calibration. Ecological Modelling 110: 175-207.
49. Van Winkle W, KA Rose, BJ Shuter, **HI Jager**, & BD Holcomb. 1997. Effects of climatic temperature change on growth, survival, and reproduction of rainbow trout: predictions from a simulation model. Canadian Journal of Fisheries and Aquatic Sciences 54: 2526-2542.
50. Van Winkle W, CC Coutant, **HI Jager**, and others. 1997. Uncertainty and instream flow standards: perspectives based on research and assessment experience. Fisheries 21: 21-22.
51. **Jager HI**, HE Cardwell, MJ Sale, MJ Bevelhimer, CC Coutant, & W Van Winkle. 1997. Modelling the linkages between flow management and salmon recruitment in streams. Ecological Modelling 103: 171-191.
52. Cardwell H, **HI Jager**, & MJ Sale. 1996. Designing instream flows to satisfy fish and human water needs. ASCE Journal of Water Resources Planning and Management 122(5): 356-363.
53. **Jager HI**, DL DeAngelis, MJ Sale, W VanWinkle, DD Schmoyer, MJ Sabo, DJ Orth, & JA Lukas. 1993. An individual-based model of smallmouth bass reproduction and young-of-year dynamics in streams. Rivers 4: 91-113.
54. **Jager HI**, MJ Sale, & RL Schmoyer. 1990. Regional assessment of water quality in the Southern Blue Ridge Province using cokriging. Water Resources Research 26(7):1401-1412.
55. Dale, VH, **HI Jager**, RH Gardner, & AE Rosen. 1988. Using sensitivity and uncertainty analysis to improve predictions of broad-scale forest development. Ecological Modelling 42:165-178.
56. **Jager HI** & RH Gardner. 1988. A simulation experiment to investigate food web polarization. Ecological Modelling 41: 101-116.

Book Chapters

57. Efroymson RA, **HI Jager**, & W Hargrove. 2010. Valuing wildlands. Pages 157-185 In Environmental Risk Assessment and Management from a Landscape Perspective, L Kapustka, W Landis, and A Johnson (editors). John Wiley & Sons.

58. Efroymson, RA, Carlsen TM, **Jager, HI**, et al. 2004. Pages 261-285 *In* Toward a Framework for Assessing Risk to Vertebrate Populations from Brine and Petroleum Spills at Exploration and Production Sites, Landscape Ecology and Wildlife Habitat Evaluation, ASTM STP 1458, L. Kapustka et al. (eds.), ASTM International, West Conshohocken, PA.
59. **Jager HI**, KA. Rose & A Vila-Gispert. 2008. Life history correlates and extinction risk of capital breeding fishes. Pages 15-25 In Fish and Diadromy in Europe. Proceedings of the symposium held 29 March-1 April, 2005, Bordeaux, France, Dufour, Prevost, Rochard, and Williot (eds.). Springer, Amsterdam.
60. **Jager HI**, MS Bevelhimer, KA Lepla, JB Chandler, & W Van Winkle. 2007. Evaluation of Reconnection Options for White Sturgeon in the Snake River Using a Population Viability Model. Pages 319-335 In Proceedings of the Symposium on Anadromous Sturgeons. J.F. Munro et al., ed., American Fisheries Society Symposium 56, American Fisheries Society, Bethesda, MD.
61. Van Winkle W, BD Holcomb, **HI Jager**, JA Tyler, SY Whitaker & BJ Shuter. 1995. Regulation of energy acquisition and allocation to respiration, growth, and reproduction: simulation model and example using rainbow trout. *IN* RC Chambers and EA Trippel, (eds.), Early Life History and Recruitment in Fish Populations, Chapman and Hall.
62. **Jager HI** & WS Overton. 1993. Explanatory models for ecological response surfaces. Chapter 42, pp. 422 - 437 *IN* Goodchild, M.F., B.O. Parks, and L.T. Steyaert (eds.), Environmental Modeling with GIS. Oxford University Press, NY.
63. Cook, RB & **HI Jager**. 1991. Upper Midwest: The effects of hydrologic lake type and acidic deposition on lakewater chemistry. Chapter 13 *IN* D.F. Charles (ed.). Acidic Deposition and Aquatic Ecosystems: Regional Case Studies. Springer-Verlag, New York.

Significant Reports

Kao, S.C, M. Ashfaq, BS. Naz, R Uría-Martínez, D Rastogi, R Mei, **H Jager**, NM. Samu, and MJ. Sale. 2016. The Second Assessment of the Effect of Climate Change on Federal Hydropower. ORNL/SR-2015/357.

Jager, HI and four coauthors. 2017. Chapter 5 Water Quality Responses to Simulated Management Practices on Agricultural Lands Producing Biomass Feedstocks in Two Tributary Basins of the Mississippi River. 2016 Billion-Ton Report (BT16), Volume 2: Environmental Sustainability Effects of Select Scenarios from Volume 1. Department of Energy and Oak Ridge National Laboratory.

Jager, HI and four coauthors. 2017. Chapter 10 Simulated Response of Avian Biodiversity to Biomass Production. 2016 Billion-Ton Report (BT16), Volume 2: Environmental Sustainability Effects of Select Scenarios from Volume 1. Department of Energy and Oak Ridge National Laboratory.

Kaufmann, P.R., A. Herlihy, J. Elwood, M. Sale, and **H. Jager**. Chemical characteristics of streams in the mid-Atlantic and Southeastern United States (national stream survey: phase 1). Volume 2. Streams sampled, descriptive statistics, and compendium of physical and chemical data. U.S. Environmental Protection Agency, Washington, D.C., EPA/600/3-88/021B (NTIS PB89119614).

PROFESSIONAL ACTIVITIES, INVITED PRESENTATIONS*, AND SERVICE

- Program Review, USGS Northeast Climate Science Center. (2017). French et al. Five-Year External Reviews of the Eight Department of Interior Climate Science Centers.
- *Hydropower and Marine Hydrokinetic energy, Symposium on Renewable Energy and Wildlife at the Wildlife Society, Albuquerque (2017)
- Elected as President-Elect of Water Quality Section, American Fisheries Society (2017)
- *Roundtable on Spatial ecology and big data, 'Emerging risks, measured responses'. NIMBIOS, U. Tennessee, (2017)
- Co-organized DOE workshop, 'Bioenergy Solutions to Gulf Hypoxia', held in Washington DC (2016)
- *Symposium, 'Inland drivers of Gulf Hypoxia' American Fisheries Society meeting, Kansas City, (2016)
- *Southern Grassroots Biofuels Project Workshop, Tennessee Technical University, Cookeville, (2016)

- Organized symposium “Shifting Landscapes: Biomass and Biodiversity II” Intern’l Assoc. Landscape Ecologists, Asheville, NC (2016)
- *Watershed modeling for the Mississippi River Basin, Federal multi-agency modeling workgroup. (2016)
- *Watershed modeling for the Mississippi River Basin, EPA Gulf of Mexico Hypoxia Taskforce (2016)
- National Institute of Math. and Biological Synthesis Working group, ‘Organisms to Ecosystem Services’ (2015-2017)
- Mississippi River Basin / Gulf Hypoxia Initiative meeting of the Eastern Tallgrass Prairie and Big Rivers Landscape Conservation Cooperative, Indianapolis. (2016)
- *National Working Forum: Managing Poplar and Willow for Environmental Benefits and the Renewable Fuels Industry, Portland, April, (2016)
- *Individual-based sturgeon contaminant modeling. EPA Office of Pesticide Programs, DC (2015)
- *Symposium “Using Science to Promote Sustainable Biofuels Production in the Southeast,” National Bioenergy Day webinar, Southeastern Partnership for Integrated Biomass Supply Systems (2015)
- Search committee, University of Tennessee EEB Faculty search (Spatial Ecologist) (2015-2017)
- Career panel (Non-academic careers in Statistical Ecology), National Institute for Mathematical & Biological Sciences, University of Tennessee, Knoxville (2015)
- *NSF Scholars, "Preparation of Data Driven Mathematical Scientists for the Workforce", East Tennessee State University (2015)
- National Institute of Math. And Biological Synthesis Working group, ‘Modeling Species Interactions’ (2013-2015)
- *Designing Bioenergy Landscapes for Wildlife, Center for Bioenergy Sustainability, ORNL (2014).
- *NSF National Institute of Mathematical and Biological Synthesis (2014).
- Search committee, Director of National Institute for Mathematical & Biological Sciences (2014)
- *Symposium, Model Complexity, American Fisheries Society meeting, September (2013).
- Keynote presentation Spring Runoff Conference, Utah State U. April (2013)
- Co-organizer, debate on the Sustainability of Biomass Production for Energy. Annual Ecological Society of America (2012)
- Local organizing committee, Annual Meeting of the Society of Mathematical Biology, Knoxville, TN. (2012)
- *Columbia Basin Sturgeon Workshop on sturgeon passage, Northwest Power Planning Council (2012)
- Scientific review Alternative San Joaquin River Flow Objectives for Protection of Fish & Wildlife for California EPA (2011)
- Peer review of USEPA Conceptual Models for Biofuel Feedstock Production (2011)
- *Center for BioEnergy Sustainability Workshop “Billion Ton Study Sustainability” (2011)
- *Great Lakes Fishery Trust Workshop, “Enhancing Lake Sturgeon Passage at Hydroelectric Facilities,” (2011)
- *NMFS Sturgeon workshop - Recovery measures for Atlantic and Shortnose sturgeon in Alexandria, VA (2011)
- Organized symposium “Shifting Landscapes: Biomass and Biodiversity” Intern’l Assoc. Landscape Ecologists, Athens, GA www.esd.ornl.gov/~zij/IALE_symposium/ (2010)
- EPA-DOE Joint workshop “A Watershed Perspective on Bioenergy Sustainability” (2010)
- *Gulf Sturgeon Modeling Review Panel, NOAA, Cedar Key, Florida (2009)
- NSF Workshop “Computational Science for Natural Resource Managers,” Keynote presentation (2007)
- San Joaquin River Fall Chinook Salmon Modeling Review (2006), California Dept of Fish & Game.
- Scientific Committee, “Fish and Diadromy in Europe,” Conference, Bordeaux, France (2005)
- Pallid Sturgeon Review Panel for the US Army Corps of Engineers (2004-2005)
- Everglades Model Review Team for the US Geologic Service, Miami, FL (2002-2003)
- Panel discussion, Hydropower Relicensing and the Environment, WaterPower, Orlando, FL (1998)

MENTORING

Jasmine Kreig (Bredesen Center Fellow, 2015-present), Rebecca Novello (2016-2017), James Nance (Postdoc Fellow 2016), Jake Ferguson (NIMBIOS Postdoc Fellow 2015-2016); Angela Peace (NIMBIOS Postdoc Fellow 2015); Matthew Fuller, DOE Hydropower Fellow (2014-2017); Nathan Sutton, post-MS (2014-2016); Jasmine Krieg, post-BS (2014-2015); Angelina Haines, post-BS (2014-2015); David Gorelick, BS (2014, 2015); Michael Kelly, PhD student (2013); Jamie Smedsmo, DOE Krell Institute Computational Fellow (2013); Peter Schweizer, postdoc (2008-2010); Mathew Rice (2011); Alex Perkins, PhD student, DOE Krell Institute Computational Fellow (2010); Lin Shi (2010); Alexandre Lockhart (2008); Emanuel Isang, ETSU (2008), Kendall Ernst, Stanford U. (summer 2007); Darryl Hoy, Dartmouth College (2005); Eric Carr, post-MS (2005), Liliya Hartman (2003); Annett Sullivan, Wigner Postdoc Fellow (2000-2002); Brian Maskarinek (2000-2001).