

Department of Ecology and Evolutionary Biology  
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**EDUCATION**

BA, 2001-2006, University of Colorado, Boulder, EPOB and HIST

Masters, 2006-2008, University of Colorado, Boulder, EEB

PhD, 2008-present, University of Colorado, Boulder, EEB

Advisor: Dr. Robert P. Guralnick

[robgur.googlepages.com](http://robgur.googlepages.com)

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**PUBLICATIONS**

2008 Schmidt SK, Reed SC, Nemergut DR, Grandy AS, Cleveland CC, Weintraub MN, Hill AW, Costello EK, Meyer AF, Martin AM, Neff JC (2008) The earliest stages of microbial ecosystem succession in high-elevation, recently deglaciated soils. *Proceedings B*

Janies D, Habib F, Alexandrov B, Hill AW, Pol D (2008) Evolution of genomes, host shifts, and geographic spread of SARS-CoV and related coronaviruses. *Cladistics* 23:1-20.

Hill AW, Guralnick RP, Wilson MJC, Janies D (*in review*) Evolution of drug-resistance in multiple distinct lineages of influenza A/H5N1. *Infection, Genetics, and Evolution*

2007 Guralnick RP, Hill AW, Lane M (2007) Towards a collaborative, global infrastructure for biodiversity assessment. *Ecology Letters* 10:663-672.

Janies D, Hill AW, Guralnick RP, Habib F, Waltari E, Wheeler WC (2007) Genomic analysis and geographic visualization of the spread of Avian Influenza (H5N1). *Systematic Biology* 56(2):321-329.

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**PEER REVIEWED CONFERENCE PROCEEDINGS**

2008 Hill AW, Guralnick RP (2008) Distributed Systems and Automated Biodiversity Informatics: Genomic Analysis and Geographic Visualization of Disease Evolution. In A. Gray, K. Jeffery, and J. Shao (Eds.) British National Conference on Databases. Springer-Verlag Lecture Notes in Computer Science series 5071, pp. 270-279. Berlin & Heidelberg. [Conference Proceedings DOI:10.1007/978-3-540-70504-8\_28]

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**PRESENTATIONS**

- 2008 Distributed Systems and Automated Biodiversity Informatics (*Presentation*)  
BNCOD, Biodiversity Informatics Workshop, July 10, Cardiff Wales. *Best Paper* recognition
- 2007 Genomic Analysis and Geographic Visualization of H5N1 and Sars-CoV (*Poster*)  
AMIA 2007 Annual Symposium, Nov. 10, Chicago, IL. *Distinguished Poster Award*
- Reducing Turnaround Time in Analysis and Visualization of Infectious Disease Spread (*Poster*)  
Phyloinformatics Workshop, e-Science Institute, Edinburgh UK
- Biodiversity Analysis Tomorrow and Beyond (*Presentation*)  
GBIF Science Symposium 5, Amsterdam NL (*invited*)
- Geospatial Analysis of Pandemic Influenza (*Presentation*)  
Force Health Protection Conference, US Joint Services (*invited*)
- Avian Influenza Geography and Genomics (*Presentation*)  
US Joint Services Briefing on Pandemic Preparedness, United States Pentagon (*invited*)
- Avian Influenza Geography and Genomics (*Presentation*)  
Conference on Pandemic Preparedness. Harvard Business School (*invited*)
- Phylogenomic Analysis of Infectious Diseases (*Poster, lead: Boyan Alexandrov*)  
Ohio Collaborative Conference on Bioinformatics, Miami University
- 2006 Scientific Study in Virtual Globes (*Presentation*)  
National Center for Atmospheric Research. 2 Talks (*invited*)
- Trees in Space (*Presentation*)  
First Annual Virtual Globe Scientific Users Conference.
- Using Google Earth Mashups to Examine H5N1 Influenza Emergence (*Presentation*)  
Evolution 2006, SSE.
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## GRANTS

- 2008 Co-PI: A System for Increasing the Georeferencing Quantity and Quality of All GBIF-Mediated Occurrence Records. PI Reed Beaman (FLMNH), Co-PIs Paul Flemons (AU), Robert Guralnick (CU), Andrew Hill (CU), Aimee Stewart (KU). 2007-08 GBIF Seed Money Grant. \$50,000 total budget, \$25,000 for CU.
- 2007 Walker Van Riper CU Museum Grant. \$1500, "Developing integrated analysis solutions for a data-rich world."
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## RESEARCH AND PROFESSIONAL EXPERIENCE

- 2008: Research Assistant, U. of Colorado (EEB). Robert Guralnick. (*Fall*)
- Research Assistant, U. of Colorado (EEB). Robert Guralnick. (*Summer*)

Research Assistant, U. of Colorado (EEB). Steve Schmidt and Robert Guralnick. *(Spring)*

2006-08: Research Assistant, Novel Analytical and Empirical Approaches to the Origin and Prediction of Pathogenicity. Columbus, OH, and Boulder, CO. Dr. Daniel Janies and Dr. Robert Guralnick.

2007: Research Assistant, U. of Colorado (EEB). Steve Schmidt and Robert Guralnick. *(Fall)*

Graduate Assistant, U. of Colorado Natural History Museum. G. Hall and M. Kageyama. *(Spring)*

2006: BayesFold User Interface Design, University of Colorado, Department of Chemistry and Biochemistry. Dr. Rob Knight.

Visualization and development assistant, The Timoney Group. Denver, CO, Brian Timoney.

Independent Research, Novel Visualization Tools for Biological Sciences. Boulder, CO. Robert Guralnick

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## TEACHING EXPERIENCE

2006 Invertebrate Diversity. Teaching Assistant. Website: <http://andrewxhill.googlepages.com/invert>  
University of Colorado. 5.57/6.00 FCQ Rating

2005 SAT and LSAT Prep. Courses. Instructor. The Princeton Review.

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## MANUSCRIPT REVIEWS

2007 Source Code for Biology and Medicine. [www.scfbm.org](http://www.scfbm.org)

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## INVENTION DISCLOSURES

2007 Janies D, Hill AW, Guralnick RP, Habib F, Waltari E, Wheeler WC. "Process to integrate information on phylogenetic, mutational, and geographic variation among organisms"

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## WEB APPLICATIONS

Distributed system for dedicated phylogenetic analysis of Influenza: [biodiversity.colorado.edu](http://biodiversity.colorado.edu)

Biogeography and phylogenetic analysis system (SuperMAP): [supermap.osu.edu](http://supermap.osu.edu)

*Retired.* KML of Species-Occurrence Record Density (KSORD): [ksord.colorado.edu](http://ksord.colorado.edu)

Freshwater and regional mollusca sightings database (COSight): [ksord.colorado.edu/COSight](http://ksord.colorado.edu/COSight)

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## PROFESSIONAL AFFILIATIONS

Society of Systematic Biologists (SSB)

Society for the Study of Evolution (SSE)

**PRESS COVERAGE**

- 2007 "Tuesday Map: Google Earth does bird flu", Foreign Policy, May 8.  
"Avian Flu: Seeing the Big Picture", MIT Technology Review, May 7.  
"Google map tracks avian flu", Denver Post, May 1.  
"Mapping the phylogeny of avian flu in Google Earth", Ogle Earth, April 30.  
"'Supermap' Of Avian Flu Yields New Info on Source and Spread", Science Daily, April 30.
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