Christopher Hann-Soden

213 Hillside Ave, Piedmont, CA, 94611

(925)872-2716 • channsoden@gmail.com
https://github.com/channsoden

Computational Biologist and Bioinformatician
I recently earned my PhD for studying the evolution of sex by comparing mold genomes. I develop and employ algorithms and statistical tools to analyze complex data. I'm interested in analyzing and presenting data of all types in order to improve the quality of people's lives.

Experience

UC Berkeley **Berkeley, CA**
Domain Consultant, Berkeley Research Computing *Jan 2018–Present*

Key Skills: communication, HPC, Unix systems, Git, cloud computing, collaboration.

- Provided technical support and consulting services to researchers in data-driven domains.
- Developed training and documentation for campus IT services and infrastructure, including HPC and cloud services.

UC Berkeley **Berkeley, CA**
Graduate Student Researcher, Taylor Lab *Jul 2012–Dec 2018*

Key Skills: NGS, phylogenetics, genomics, population genetics, Python, R, HPC, writing, oral presentation.

- Independently developed a statistical framework and efficient algorithm for measuring genomic rearrangement rates.
- Used statistical and machine learning methods of population and comparative genomics to investigate the evolutionary consequences of breeding system transitions in *Neurospora*.
- Modeled the transcriptional response of *Neurospora* to acclimation and adaptation to warmer temperatures.
- Administered and maintained the laboratory's Linux server.

UC Berkeley **Berkeley, CA**
Instructor *2014–2018*

Key Skills: oral presentation, information synthesis, communication, teamwork.

- Introduction to Programming for Bioinformatics (Summers 2014-2017, Winters 2016-2018)
- General Biology (Spring 2015, Spring 2018)
- Microbiology Laboratory (Spring 2014)

UC Berkeley **Berkeley, CA**
Laboratory Assistant I, Glaunsinger Lab *Aug 2011–May 2012*

Key Skills: molecular biology, cell culture, time management, neatness, organization, teamwork.

- Systematically mapped interactions between human and viral proteins.
- Developed and implemented work flows for cloning, heterologous gene expression, coimmunoprecipitation, and blotting.

Education

- **UC Berkeley** — **Berkeley, CA**
  Microbiology, Doctorate of Philosophy — *2012–2018*
  Philomathia Scholars Graduate Fellowship — *2015–2017*
  Webmaster, Microbiology Student Group — *2016*
  Symposium Chair, Microbiology Student Group — *2015*

- **Humboldt State University** — **Arcata, CA**
  Biology & Zoology, Bachelor of Science — *2008–2010*
  cum laude

Publications

Christopher Hann-Soden, Lilliam A. Montoya, Pierre Gladieux, and John W. Taylor. New reproductive and ecological diversity in the model genus, neurospora. in prep.

Christopher Hann-Soden, Lilliam A. Montoya, Pierre Gladieux, and John W. Taylor. Lack of linkage and efficient selection evince outcrossing in self-fertile neurospora. in prep.

Christopher Hann-Soden, Ian Holmes, and John W. Taylor. Estimation of rearrangement break rates across the genome. in prep.

Pierre Gladieux, Fabien De Bellis, Christopher Hann-Soden, Jesper Svedberg, Hanna Johannesson, and John W Taylor. Neurospora from natural populations: Population genomics insights into the life history of a model microbial eukaryote. in press.

Arturo Casadevall, Joudeh B. Freij, Christopher Hann-Soden, and John Taylor. Continental drift and speciation of the cryptococcus neoformans and cryptococcus gattii species complexes. *mSphere*, 2:e00103–17, 2017.

Pierre Gladieux, Benjamin A. Wilson, Fanny Perraudeau, Liliam A. Montoya, David Kowbel, Christopher Hann-Soden, Monika Fischer, Iman Sylvain, David J. Jacobson, and John W. Taylor. Genomic sequencing reveals demographic, historical, and selective factors associated with the diversification of the fire-associated fungus neurospora discreta. *Molecular Ecology*, 24:5657–75, 2015.

John W. Taylor, Christopher Hann-Soden, Sara Branco, Iman Sylvain, and Chris Ellison. Clonal reproduction in fungi. *PNAS*, 112(29):8901–8, 2015.

Other Skills & Projects

Dancify - A web app to tag and visually explore your music using Spotify data.

Partner Dancing - Blues and fusion, 4 years.

Martial Arts - Shorinji Kempo, 11 years.