

Jorrit H Poelen

Independent Software/Data Engineer
Open Science / Biodiversity Informatics
[UCSB CCBER Research Affiliate](#)
Ronin Institute Research Scholar

Email: jhpoelen@jhpoelen.nl
GitHub: github.com/jhpoelen
ORCID: [0000-0003-3138-4118](https://orcid.org/0000-0003-3138-4118)
Scholia: [Q58206618](https://scholia.org/Q58206618)

Education

2000 MSc. Experimental Physics, University of Groningen, the Netherlands

Appointments and Positions

2020-Present **Research Associate**, UC Santa Barbara, Cheadle Center for Biodiversity and Ecological Restoration, Santa Barbara, CA
2020-Present **Research Scholar**, Ronin Institute, Montclair, NJ
2008-Present **Independent Software/Data Engineer**, Oakland, CA / Minneapolis, MN
2012-2013 **Assistant Director**, UC San Francisco, Helen Diller Family Comprehensive Cancer Center Translational Informatics Program, San Francisco, CA
2011-2012 **Software Engineer**, Pandora Media Inc., Oakland, CA
2010-2011 **Software Engineer**, Xoom Inc., San Francisco, CA
2006-2008 **Software Engineer**, GE Healthcare, Barrington, IL
2002-2006 **Software Engineer**, GE Healthcare, Zeist, the Netherlands
2001-2002 **Software Engineer**, Tekadence Inc., San Francisco, CA
1999-2001 **Research Associate**, UC Berkeley, School of Optometry, Berkeley, CA

Publications

Google Scholar: <https://goo.gl/dwyv7P> / Scholia: [Q58206618](https://scholia.org/Q58206618)

Publications (selection)

Drucker DP, Salim JA, **Poelen J**, Soares FM, Gonzalez-Vaquero RA, Devoto M, et al. WorldFAIR (D10.3) Agricultural biodiversity FAIR data assessment rubrics. Zenodo; 2024 Feb; DOI: [10.5281/zenodo.10719265](https://doi.org/10.5281/zenodo.10719265)

Drucker D, Salim JA, **Poelen J**, Soares FM, Gonzalez-Vaquero RA, Ollerton J, et al. WorldFAIR (D10.2) Agricultural Biodiversity Standards, Best Practices and Guidelines Recommendations. Zenodo; 2024 Feb; DOI: [10.5281/zenodo.10666593](https://doi.org/10.5281/zenodo.10666593)

Sullivan KA, Tucker EM, Dowdy NJ, Allen JM, Barve V, Boone JH, Bush SE, Evenhuis NL, Hastriter M, Light JE, Mayfield-Meyer T, OConnor BM, **Poelen JH**, Racz GR, Seltsmann KC, Zaspel JM. Building a community-based taxonomic resource for digitization of parasites and their hosts. *Insect Systematics and Diversity*; 2023 Nov; DOI: [10.1093/isd/ixad023](https://doi.org/10.1093/isd/ixad023)

Elliott MJ, **Poelen JH**, Fortes JAB. Signing data citations enables data verification and citation persistence. *Scientific Data*; 2023 Jun; DOI: [10.1038/s41597-023-02230-y](https://doi.org/10.1038/s41597-023-02230-y)

Trekels M, Pignatari Drucker D, Salim JA, Ollerton J, **Poelen J**, Miranda Soares F, et al. WorldFAIR

- Project (D10.1) Agriculture-related pollinator data standards use cases report. Zenodo; 2023 Jul.; DOI: [10.5281/zenodo.8176978](https://doi.org/10.5281/zenodo.8176978)
- Keller A, Ankenbrand MJ, Bruelheide H, Dekeyzer S, Enquist BJ, Erfanian MB, Falster DS, Gallagher RV, Hammock J, Kattge J, Leonhardt SD, Madin JS, Maitner B, Neyret M, Onstein RE, Pearse WD, **Poelen JH**, Salguero-Gomez R, Schneider FD, ... Penone C.. Ten (mostly) simple rules to future-proof trait data in ecological and evolutionary sciences. *Methods in Ecology and Evolution*; 2022 Nov; DOI: [10.1111/2041-210X.14033](https://doi.org/10.1111/2041-210X.14033)
- Upham NS, **Poelen JH**, Paul D, Groom QJ, Simmons NB, Vanhove MPM, Bertolini S, Reeder DM, Bastos-Salveira C, Sen A, Sterner B, Franz NM, Guidoti M, Penev L, Agosti D. Liberating host–virus knowledge from biological dark data. *The Lancet Planetary Health*. 2021 Oct; DOI: [10.1016/S2542-5196\(21\)00196-0](https://doi.org/10.1016/S2542-5196(21)00196-0)
- Elliott MJ, **Poelen JH**, Fortes JAB. Toward reliable biodiversity dataset references. *Ecological Informatics*. 2020 Sept; 59:101132-. DOI: [10.1016/j.ecoinf.2020.101132](https://doi.org/10.1016/j.ecoinf.2020.101132)
- Gallagher R, Falster D, Maitner B, Salguero-Gómez R, Vandvik V, Pearse W, Schneider F, Kattge J, **Poelen JH**, et al. Open Science principles for accelerating trait-based science across the Tree of Life. *Nature Ecology and Evolution* 2020 Mar;4(3):294-303. PMID: 32066887. DOI: [10.1038/s41559-020-1109-6](https://doi.org/10.1038/s41559-020-1109-6)
- Hayden B, Palomares MLD, Smith BE, **Poelen JH**. Biological and environmental drivers of trophic ecology in marine fishes - a global perspective. *Scientific Reports*, 2019 Aug;9, 11415. DOI: [10.1038/s41598-019-47618-2](https://doi.org/10.1038/s41598-019-47618-2)
- Grüss A, Palomares M, **Poelen JH**, Barile J, Aldemita C, Ortiz S, Barrier N, Shin Y, Simons J, Pauly D. Building bridges between global information systems on marine organisms and ecosystem models. *Ecological Modelling*. 2019 April; 398:1-19. DOI: [10.1016/j.ecolmodel.2019.01.023](https://doi.org/10.1016/j.ecolmodel.2019.01.023)
- Hardisty A, Michener W, Agosti D, Alonso García E, Bastin L, Belbin L, Bowser A, Buttigieg P, Canhos D, Egloff W, De Giovanni R, Figueira R, Groom Q, Guralnick R, Hobern D, Hugo W, Koureas D, Ji L, Los W, Manuel J, Manset D, **Poelen JH**, Saarenmaa H, Schigel D, Uhler P, Kissling W. The Bari Manifesto: An interoperability framework for essential biodiversity variables. *Ecological Informatics*. 2019 January; 49:22-31. DOI: [10.1016/j.ecoinf.2018.11.003](https://doi.org/10.1016/j.ecoinf.2018.11.003)
- Thessen A, **Poelen JH**, Collins M, Hammock J. 20 GB in 10 minutes: a case for linking major biodiversity databases using an open socio-technical infrastructure and a pragmatic, cross-institutional collaboration. *PeerJ Computer Science*. 2018 September 17; 4:e164-. DOI: [10.7717/peerj-cs.164](https://doi.org/10.7717/peerj-cs.164)
- Kuhn T, Banda J, Willighagen E, Ehrhart F, Evelo C, Malas T, Dumontier M, Merono-Penuela A, Malic A, **Poelen JH**, Hurlbert A, Centeno Ortiz E, Furlong L, Queralt-Rosinach N, Chichester C. Nanopublications: A Growing Resource of Provenance-Centric Scientific Linked Data. *2018 IEEE 14th International Conference on e-Science (e-Science)*. 2018 IEEE 14th International Conference on e-Science (e-Science); ; Amsterdam. IEEE; c2018. DOI: [10.1109/eScience.2018.00024](https://doi.org/10.1109/eScience.2018.00024)
- Poelen JH**, Simons J, Mungall C. Global biotic interactions: An open infrastructure to share and analyze species-interaction datasets. *Ecological Informatics*. 2014 November; 24:148-159. DOI: [10.1016/j.ecoinf.2014.08.005](https://doi.org/10.1016/j.ecoinf.2014.08.005)
- Simons J, Yuan M, Carollo C, Vega-Cendejas M, Shirley T, Palomares M, Roopnarine P, Gerardo Abarca Arenas L, Ibañez A, Holmes J, Mazza Schoonard C, Hertog R, Reed D, **Poelen JH**. Building a Fisheries Trophic Interaction Database for Management and Modeling Research in the Gulf of Mexico Large Marine Ecosystem. *Bulletin of Marine Science*. 2013 January 01;89(1):135-160. DOI: [10.5343/bms.2011.1130](https://doi.org/10.5343/bms.2011.1130)

Synergistic Activities

Co-founder and maintainer of Global Biotic Interactions (<https://globalbioticinteractions.org>), an infrastructure that facilitates open access to species interactions data using open source software

Editor of Open Traits Network (<https://opentraits.org>), a global, decentralized community of researchers and institutions working towards standardizing and integrating trait data across all organisms.

Active open source/data contributor (<https://github.com/jhpoelen>), maintaining software libraries like Nomer (a name alignment tool, <https://github.com/globalbioticinteractions/nomer>), Preston (a biodiversity data tracker, <https://github.com/bio-guoda/preston>), rglobi (<https://github.com/ropensci/rglobi>), and Elton (a species interaction data tracker, <https://github.com/globalbioticinteractions/elton>).

Contributor to, and collaborator in, Parasite Tracker (<https://parasitetracker.org>) and Big Bee (<https://big-bee.net>) Thematic Collection Networks, NSF funded initiatives to help make natural history collections more easily, and openly, accessible through digitization and community building.

Active member of biodiversity informatics collaboration networks like iDigBio (<https://idigbio.org>) and TDWG (<https://tdwg.org/>).

Participated in peer reviews for journals, including, but not limited to: [eLife](#), [Biodiversity Data Journal](#), [Global Ecology and Biogeography](#), [iScience](#), [Scientific Data](#), and [Scientific Reports](#).