

Richard Allman Levy

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EDUCATION

- University of Colorado, Boulder
M.S. Museum and Field Studies 2014
- Emphasis on field research methods and collections management
- University of Colorado, Boulder
B.A. Ecology and Evolutionary Biology 2010
- Emphasis on plant ecology and climate change biology
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EXPERIENCE

- Denver Botanic Gardens 2021- Present
- Scientific Data Manager**, Research and Conservation
- Manage all scientific database systems
 - Full stack web application development
 - Lead institutional digital asset management system implementation
 - Oversee scientific digital initiatives
 - Coordinate and develop protocols for department projects and data collection
 - Curation and publication of digital scientific datasets
- Denver Botanic Gardens 2014- 2021
- Database Associate**, Research and Conservation
- Manage all scientific database systems
 - Oversee scientific digital initiatives
 - Digital Asset Management
 - Coordinate and develop protocols for department projects and data collection
 - Establishment and coordination of insect collection and plant tissue biorepository
- University of Colorado, Boulder 2018
- Instructor**, *MUSM 6110: Museum Informatics*
- Develop curriculum for new course covering museum digital curation
 - Teach students how to build and use MySQL database
 - Emphasis on hands on experience using digital tools
- University of Colorado Museum of Natural History 2011-2014
- Graduate Research**, *Dispersal potential impacts size clines of grasshoppers across an elevation gradient*
- Developed methods and framework to address research question
 - Extensive field work, population sampling
 - Conducted statistical analyses
 - Led and mentored data collection team
 - Met deadlines and led project to completion on schedule
 - Presented and defended findings to peers
 - Prepared manuscript for publication
- University of Colorado Museum of Natural History 2011- 2014
- Research Assistant**, Zoology, Invertebrate Zoology, Invertebrate Paleontology Collections
- Aspen Center for Environmental Studies 2013
- Summer Naturalist**
- University of Colorado Museum of Natural History 2010
- Field Research Assistant**, *Grasshoppers and Climate Change*
- University of Colorado Museum of Natural History 2009
- Research Intern**, *Phenological patterns of sub-Alpine forbes*

PUBLICATIONS

Alba, C., **Levy, R.**, Hufft, R. 2021. Combining botanical collections and ecological data to better describe plant community diversity. PLOS ONE. <https://doi.org/10.1371/journal.pone.0244982>

Levy, R.A., Paces, M., Hufft, R.A. 2020. Sampling event dataset for ecological monitoring of riparian restoration effort in Colorado foothills. Biodiversity Data Journal. <https://doi.org/10.3897/BDJ.8.e51817>

Hufft, R.A., DePrenger-Levin, M.E., **Levy, R.A.**, Islam M.B. 2018. Using herbarium specimens to select indicator species for climate change monitoring. Biodiversity Conservation. [10.1007/s10531-018-1505-2](https://doi.org/10.1007/s10531-018-1505-2)

Levy, R.A. and Nufio, C.R. 2015. Dispersal potential impacts size clines of grasshoppers across an elevation gradient. Oikos. [10.1111/oik.01615](https://doi.org/10.1111/oik.01615)

APPLICATIONS DEVELOPED

FASTA-GEN

Web application for generating FASTA and source modifier files for GenBank
<https://github.com/ricklevy21/fasta-gen>

point-intercept

a field-to-database web application for quantifying ground cover and vegetation
https://github.com/DenverBotanicGardens/point-intercept_2

PRESENTATIONS & POSTERS

point-intercept: a field-to-database web application for quantifying ground cover and vegetation Digital Data in Biodiversity Research; Virtual	2021
The relevance of natural history collections and their data Telluride Mushroom Festival; Telluride, Colorado	2019
Introduction to the Global Genome Initiative-Gardens APGA Collections Symposium; Vancouver, British Columbia	2018
A Case Study for Connecting Collections and Ecological Research SPNHC+TDWG; Dunedin, New Zealand	2018
A Workflow for Adding Specimen Metadata to Images Captured in the Field SPNHC+TDWG; Dunedin, New Zealand	2018
Empowering Citizen Scientists to Collect Research Grade Data and Specimens on Fungi Forays Telluride Mushroom Festival; Telluride, Colorado	2018
An economical method for creating custom QR code labels. SPNHC; Denver, Colorado	2017
An overview of field to database methods and practices iDigBio Biodiversity Informatics 101 Workshop; Denver, Colorado	2017
Climate Change on the Front Range Denver Botanic Gardens Meet Our Scientists Series; Denver, Colorado	2014
Differential life history traits of long and short winged grasshoppers across an elevation gradient Entomological Society of America; Austin, Texas	2013

WORKSHOPS and TRAININGS ATTENDED

Full Stack Web Development Bootcamp University of Denver University College	2020
Global Genome Biodiversity Network: Regional North American Workshop	2017
iDigBio: Field to Database-Biodiversity Informatics and Data Management Skills for Specimen Based Research	2015
iDigBio: Data Sharing Data Standards and Demystifying the IPT Workshop	2015
Introduction to Proposal Writing for Non-Profit Organizations	2012
VertNet: Biodiversity Informatics Training Workshop	2012

SKILLS

- Museum Biodiversity Informatics
- Excellent written and oral communication
- Ecological field work methods
- Strong organization, planning, and attention to detail
- Data standards, management, and best practices
- Full Stack Web Development (JS, MySQL, MongoDB, Express, Node, React)