

JOHN M. A. WOJAHN

Botanist specializing in molecular systematics and evolutionary biology

EDUCATION

Present
|
2020

• Doctor of Philosophy

Ecology, Evolution, and Behavior

Emphasis in Global Change Biology

📍 Boise, Idaho, USA

Boise State University

Doctoral Advisors: Sven Buerki (Primary), Martin W. Callmander

Committee: James Smith and Stephen Novak

Dissertation: Phylogenomics of *Pandanus* Park. (Pandanaceae)

2020
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2018

• Master of Science

Biology

Emphasis in Plants

📍 Boise, Idaho, USA

Boise State University

Major Advisor: Sven Buerki

Committee: James Smith and Stephen Novak

Thesis: A metanalysis of sequences of vascular plants in the world's biodiversity hotspots with a special section on Madagascar

2016
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2011

• Honors Bachelor of Science

Marine Biology

📍 Corvallis, Oregon, USA

Oregon State University

Honors Advisor: Byron C. Crump

Committee: Fiona Tomas Nash and Ryan Mueller

Thesis: Metagenomics and metatranscriptomics of the leaf-and root-associated microbiomes of *Zostera marina* and *Zostera japonica*

Minors in French and Chemistry

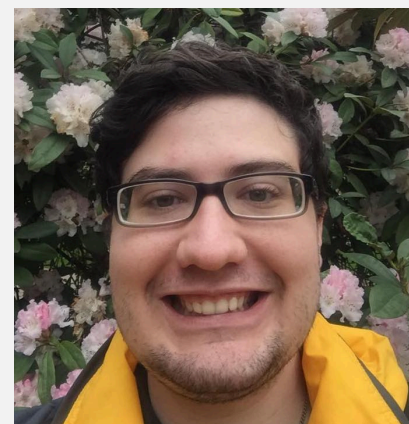
2016
|
2011

• Honors Bachelor of Science

Microbiology

📍 Corvallis, Oregon, USA

Oregon State University



CONTACT INFO

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BlueSky wojahn.bsky.social

🐙 github.com/wojahn

☎ +1 208 340 8626

SKILLS

🔍 **Research:** Reproducible Science, Phylogenomics, Botany, Computational Biology, Systematics

💻 **Programming: *Advanced:*** R (Package Developer), C, RMarkdown, UNIX/LINUX Bash; ***Intermediate:*** C++, Python, Git, Beowulf Clusters, Keras, TensorFlow; ***Basic:*** LaTeX, HTML, Fortran, Julia

🧪 **Laboratory:** DNA/RNA Extraction, PCR, Library Prep, Morphometry, Differential Staining, Cultivation

🗣 **Languages:** English (Native), French (Oral:B2; Written:C2)



PEER-REVIEWED PUBLICATIONS

- 2025 ● **#6 *Pandanus* Plastomes Decoded: When Climate Mirrors Morphology and Phylogenetic Relationships**
American Journal of Botany. 111:e16461. <https://doi.org/10.1002/ajb2.16461> 📍 St. Louis, Missouri, USA
Wojahn JMA, Callmander MW, Buerki S
- 2022 ● **#5 Update on the phylogenetic framework of Malagasy angiosperms**
In S. M. Goodman (ed.), The new natural history of Madagascar, pp. 464-470. Princeton University Press. <https://doi.org/10.2307/j.ctv2ks6tbb.58> 📍 Princeton, New Jersey, USA
Wojahn JMA, Callmander MW, Lowry PP, Buerki S
- 2022 ● **#4 Sapindaceae**
In S. M. Goodman (ed.), The new natural history of Madagascar, pp. 685-690. Princeton University Press. <https://doi.org/10.2307/j.ctv2ks6tbb.84> 📍 Princeton, New Jersey, USA
Buerki S, Philipson P, Lowry PP, **Wojahn JMA**, Andriambololonera S, Callmander MW
- 2022 ● **#3 Meta-Analysis Reveals Challenges and Gaps for Genome-to-Phenome Research Underpinning Plant Drought Response**
International Journal of Molecular Sciences. 2022, 23(20), 12297 <https://doi.org/10.3390/ijms232012297> 📍 Basel, Switzerland
Melton AE, Galla SJ, Dumanguit CD, **Wojahn JMA**, Novak S, Serpe M, Martinez P, Buerki S
- 2021 ● **#2 G2PMineR: A Genome to Phenome Literature Review Approach**
Genes. 12:293 <https://doi.org/10.3390/genes12020293> 📍 Basel, Switzerland
Wojahn JMA, Galla SJ, Melton AE, Buerki S
- 2018 ● **#1 Metatranscriptomics and Amplicon Sequencing Reveal Mutualisms in Seagrass Microbiomes**
Frontiers in Microbiology. 2018 9:388 <https://doi.org/10.3389/fmicb.2018.00388> 📍 Lausanne, Switzerland
Crump BC, **Wojahn JMA**, Tomas F, Mueller RS



RESEARCH EXPERIENCE

- Present | 2020 ● **Doctoral Research**
Boise State University, Sven Buerki's Lab (In-Person); Conservatoire et Jardin botaniques de Genève, Martin W. Callmander's Lab (Remote) 📍 Boise, Idaho, USA; Geneva, Switzerland
 - Investigating the evolutionary history of *Pandanus*
- 2022 | 2020 ● **EPSCoR Graduate Research Assistant**
Boise State University, Sven Buerki's Lab 📍 Boise, Idaho, USA
 - Provider of bioinformatics programming support for the GEM3 project in Sven Buerki's lab
 - Developed bioinformatics tools for the GEM3 community
- 2020 | 2017 ● **Master of Science Research**
Boise State University, Sven Buerki's Lab 📍 Boise, Idaho, USA
 - Investigated the reproducibility of collections and DNA sequences in biodiversity hotspots
 - Went on expedition to Madagascar with Sven Buerki to survey forest

- 2016
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2013
 - Undergraduate Research Assistant**
 Oregon State University, Byron Crump's Lab 📍 Corvallis, Oregon, USA
 - Investigated the microbiome of *Zostera marina* and *Zostera japonica*
 - Collected samples on research cruises off the Oregon coast, on the Columbia River, and in the Arctic Ocean
- Winter
2012
 - Undergraduate Research Intern**
 Oregon Department of Fish and Wildlife, Fish Health Services, Leslie Lindsay's Lab 📍 Corvallis, Oregon, USA
 - Dissected juvenile Pacific Salmon to remove kidneys for ELISA analysis
- Spring
2012
|
Winter
2011
 - Undergraduate Research Intern**
 Oregon State University Hatfield Marine Science Center, Itchung Cheung's Lab 📍 Newport, Oregon, USA
 - Enumerated fish eggs

🍏 TEACHING EXPERIENCE

- Present
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2022
 - Teaching Assistant, Doctoral**
 Introductory Cell and Molecular Biology Lab Instructor at Boise State University. [Link to positive teaching reviews](#) 📍 Boise, Idaho, USA
- 2021-
2023
 - Designed and Implemented G2PMineR Lab Section**
 Developed a new lab section for BIOL 304 Evolution and Ecology course at Boise State University based on the G2PMineR literature review package that will be made publicly available on the GEM3 website. Supervised by Sarah Dalrymple and implemented by Leonora Bittleston. 📍 Boise, Idaho, USA
- Summer
2021
 - EPSCoR GEM3 Summer Academic Research Experience Mentor**
 Instructor of R and Laboratory Techniques for EPSCoR GEM3 Summer Academic Research Experience (SARE) Class at Boise State University 📍 Boise, Idaho, USA
- Spring
2021
 - Vertically Integrated Projects Mentor**
 Instructor of R and Data Mining Techniques for Sven Buerki's Vertically Integrated Projects (VIP) course at Boise State University 📍 Boise, Idaho, USA
- Summer
2020
 - EPSCoR Research Technician 2/Bioinformatics Instructor**
 Instructor of R and Data Mining Techniques for Summer Academic Research Experience (SARE) Class at Boise State University 📍 Boise, Idaho, USA
- 2020
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2018
 - Teaching Assistant, Masters**
 Introductory Cell and Molecular Biology Lab Instructor at Boise State University. [Link to positive teaching reviews](#) 📍 Boise, Idaho, USA
- 2015
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2013
 - Teaching Assistant, Undergraduate**
 Assisted in teaching introductory French to 7th grade students at Cheldelin Middle School 📍 Corvallis, Oregon, USA

📄 GRANTS

- 2014
 - University Honors College DeLoach Work Scholarship**
 Oregon State University 📍 Corvallis, Oregon, USA
 - \$1000







★ AWARDS AND HONOR SOCIETIES

- 2024 ● **Award for Excellence in Teaching (Graduate Teaching Assistant)**
Won the Department of Biological Sciences excellence in graduate teaching award for 2024. 📍 Boise, Idaho, USA
- 2024 ● **Dean's Scholar, College of Arts and Sciences**
Won the Dean's Scholar prize for the 2024 Graduate Showcase. 📍 Boise, Idaho, USA
- Elected 2024 ● **Fellow of the Linnean Society of London**
A learned society dedicated to the study and dissemination of information concerning natural history, evolution, and taxonomy, founded in 1788.
📍 Burlington House, Piccadilly, London, UK
- Elected 2023 ● **Full Member of Sigma Xi (ΣΞ)**
Scientific Research Honor Society, founded in 1886. 📍 Research Triangle Park, North Carolina, USA




👤 POSTERS, PRESENTATIONS, AND CONFERENCES

- TBD 2025 ● **Upcoming conference honoring Chris Davidson**
Co-organizer of the conference. 📍 Boise, Idaho, USA
- 2024 ● **Plastome phylogenetic analysis of Pandanus Parkinson: insights into adaptations and taxonomic recommendations**
Poster for 2024 BSU Graduate Showcase 📍 Boise, Idaho, USA
Wojahn JMA, Callmander MW, Smith JF, Novack S, Pierce J, Buerki S
- 2023 ● **Bi-Organellar Phylogenomics of Pandanus (Pandanaceae) Sheds New Light into a Future Improved Infrageneric Classification and Ecological Processes**
Poster for 2023 BSU Graduate Showcase 📍 Boise, Idaho, USA
Wojahn JMA, Callmander MW, Smith JF, Novack S, Buerki S
- 2022 ● **Research and classroom implementation of G2PMineR: a novel genome to phenome literature review approach**
Poster for 2022 NSF EPSCoR GEM3 Annual Meeting 📍 Boise, Idaho, USA
Wojahn JMA, Dalrymple S, Bittleston L, Callmander MW, Buerki S
- 2021 ● **Testing the Reproducibility of Collection and Sequencing Efforts for the Biodiversity Hotspot Flora and Producing a Phylogeny of the Pandanaceae to Assess Evolutionary Distinctiveness and Risk of Extinction**
Poster for 2021 Graduate Proposal Showcase 📍 Boise, Idaho, USA
Wojahn JMA, Callmander MW, Smith J, Novack S, Buerki S
- 2020 ● **G2PMineR: A genome to phenome literature review approach**
Poster for 2020 GEM3 Annual Meeting 📍 Boise, Idaho, USA
Wojahn JMA, Galla SJ, Buerki S
- 2018 ● **Developing a rapid plant community survey for use in biodiversity hotspots**
Poster for the Forum on Biodiversity of Global Hotspots 📍 Boise, Idaho, USA
Wojahn JMA, Buerki S


DIVERSITY, EQUITY, AND INCLUSION

- 2024-ongoing** ● **Out in Science, Technology, Engineering, and Mathematics (oSTEM) Global**
Member of the Global chapter of oSTEM, a non-profit professional association for LGBTQ+ people in the STEM community.
 Global
- 2023** ● **Some woody plants of the Boise River/Algunas plantas leñosas del río Boise/Quelques plantes ligneuses de la rivière Boise**
Wrote trilingual guide to some of the woody plants of the Boise River for a nature walk hosted by Project Scientia, a multilingual public science dissemination organization.
<https://tinyurl.com/2s3pb26c>
 Boise, Idaho, USA
- Summer 2021** ● **Summer Authentic Research Experience (SARE) Mentor**
Mentored minority and first-generation undergraduates
 Boise, Idaho, USA
- Summer 2020** ● **Summer Authentic Research Experience (SARE) Mentor**
Mentored minority and first-generation undergraduates
 Boise, Idaho, USA
- 2019** ● **Plant Identification For People With Visual Impairments**
Posted an accessible guide on plant identification for people with visual impairments
<https://tinyurl.com/5ee7kp63>
 Boise, Idaho, USA
- 2011-2016** ● **Out in Science, Technology, Engineering, and Mathematics (oSTEM) Oregon State University chapter**
Undergraduate member of oSTEMatOSU, a non-profit student association for LGBTQ+ people in the STEM community.
 Corvallis, OR, USA

LEADERSHIP

- 2024** ● **Member of the Student Advisory Board for Inclusive Leadership**
Served on the Student Advisory Board for Inclusive Leadership paid for by the NSF GOLD-EAGER grant, representing the Department of Biological Sciences.
 Boise, Idaho, USA
- Fall 2023** ● **President**
Events & Research Association
 Boise, Idaho, USA
Club to foster professional, social, and scholarly development among advanced undergraduate and graduate students primarily of the Anthropology, Biology, BMOL (Biomolecular Sciences), EEB (Ecology, Evolution, and Behavior), Geosciences, and HES (Human Environment Systems) programs at Boise State University.
- 2019-2020** ● **Vice President**
Ecological Research Association
 Boise, Idaho, USA
Department of Biological Sciences graduate student social and professional development association

SOFTWARE PRODUCTS

- 2024** ● **NESS**
The Nexus for Empowered Student Societies (NESS) is a forum aims to provide a space for officers of student-led organizations to share their insights in posts called "Nessies". [Link here](#)
 Boise, Idaho, USA

2024	<ul style="list-style-type: none"> Muddiest Points Analyzer Webtool Muddiest Points Analyzer uses heuristics and random sampling to create an input file of muddiest points that a generative artificial intelligence (such as ChatGPT) can parse and synthesize into a list. The input file is not human-readable but is machine-readable. ChatGPT has a character limit that is based on the complexity of the query it is being asked. Muddiest Points Analyzer creates a response whose word limit is below that warranted by its complexity, as estimated through trial and error. Link here 	Boise, Idaho, USA
ongoing-2021	<ul style="list-style-type: none"> G2PMineR A free and open-source literature mining tool developed specifically for G2P research. This R package uses automation to make the G2P review process efficient and unbiased, while also generating hypothesized associations between genes and phenotypes within a taxonomical framework. Link here 	Boise, Idaho, USA
2022	<ul style="list-style-type: none"> SoilsSeeR SoilSeeR: An R Package to Easily Access the FAO-UNESCO Digital Soil Map of the World (0.1.0). Zenodo. https://doi.org/10.5281/zenodo.11068926 	Boise, Idaho, USA
2022	<ul style="list-style-type: none"> Kew_WCoUP_ProcessorR An R package that extracts and sorts information from the "Kew World Checklist of Useful Plants", which is available only in PDF format. Link here 	Boise, Idaho, USA
2018	<ul style="list-style-type: none"> MyLab Suite An automatic lab manager program (written in R Shiny) and a digital lab notebook program (written in C). Available, but not maintained and may no longer be stable. 	Boise, Idaho, USA

✓ CERTIFICATIONS

2021	<ul style="list-style-type: none"> Boating Safety Certificate (Boating License) Commonwealth of Massachusetts Approved by NASBLA, USCG, and Transport Canada, valid in USA and Canada 	Manchester-by-the-Sea, Massachusetts, USA
2018	<ul style="list-style-type: none"> Multi-Passenger Van Training Boise State University 	Boise, Idaho, USA
2017	<ul style="list-style-type: none"> Notary Public Training Secretary of State, State of Idaho 	Boise, Idaho, USA
2011	<ul style="list-style-type: none"> DAN Oxygen First Aid for Scuba Diving Injuries Certified by Divers Alert Network 	Boise, Idaho, USA
2010	<ul style="list-style-type: none"> EFR-Primary Care (CPR) & Secondary Care (1st Aid) Certified by Dive Magic, Inc. 	Boise, Idaho, USA
1998	<ul style="list-style-type: none"> American Red Cross Swimming Training Instructor: Annie Endo 	Misawa AFB, Aomori Prefecture, Japan

♥ MISCELLANEOUS SKILLS

2016-Present	<ul style="list-style-type: none"> Tailoring Skilled at modification and construction of formalwear and other garments, as well as mascot, cosplay, and Halloween costumes. 	Boise, Idaho, USA
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2005-
Present

● **Bonsai**

Member of the American Bonsai Society, focusing on the use of trees indigenous to North America.

📍 Boise, Idaho, USA

2000-
Present

● **5th Generation Scrimshander (*only on artificial materials*)**

5th generation scrimshander (4th: PM Wojahn neé Houghton b. 1958, 3rd: WW Houghton b. 1925, 2nd: CH Houghton b. 1885, 1st: JE Houghton b. 1857).

📍 Manchester-by-the-Sea, Massachusetts, USA