

William C. Beckerson, Ph.D. – Curriculum Vitae

Contact Information:



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Research:



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WCBeckerson/

Socials:



@WCBeckerson



@WilliaMycete



@aBitofBiology

Languages: (CEFR)



English - C2
Native



Spanish - A2.1
Elementary



Dutch - A1.1
Elementary

[What is CEFR?](#)

EDUCATION

Doctor of Philosophy in Biology 08/2015-08/2020

University of Louisville - ♣ Louisville, KY, USA

Master of Science in Biology 08/2015-05/2017

University of Louisville - ♣ Louisville, KY, USA

Bachelor of Science in Biology / Minor: Business Management 08/2009-12/2013

Georgetown College - ♣ Georgetown, KY, USA

RESEARCH EXPERIENCE

Postdoctoral Research:

ERC: Marie Skłodowska-Curie Action Postdoctoral Fellowship Awardee

Universiteit Utrecht - ♣ Utrecht, NL 08/2023-07/2025

PI: Sander van den Heuvel

Research project title: Characterizing the neuronal effects of *Ophiocordyceps* secreted proteins using *C. elegans*.

NSF: Postdoctoral Research Fellowship in Biology Awardee

University of Central Florida - ♣ FL, USA 08/2021-07/2023

PI: Charissa de Bekker

Research project title: Linking parasite genomes, environmental ques, and host phenomes in *Ophiocordyceps*.

Dissertation Research:

Ruhr-Universität Bochum - ♣ Bochum, DE 08/2018-07/2019

Collaborator: Dominik Begerow

Research project title: Implementation of CRISPR Cas9 in *Microbotryum lychnidis-dioicae*.

AdF: Chateaubriand Fellowship Awardee

Université Paris-Sud - ♣ Orsay, FR 05/2016-08/2016

Collaborator: Tatiana Giraud

Research project title: Comparative genomics of species-specific effectors in the *Microbotryum* genus.

University of Louisville - ♣ KY, USA 08/2015-08/2020

PI: Michael Perlin

Research project title: Molecular analysis of secreted proteins in the *Microbotryum* genus.

Pedagogical Research:

University of Louisville - ♣ KY, USA 09/2017-07/2021

PI: Deborah Yoder-Himes

Research project title: Analyzing the impact of active learning on different student social personalities.

PUBLICATIONS

Peer Reviewed Research Articles:

- Beckerson WC, Anderson JO, Kulkarni S, Perpich JD, Yoder-Himes D. (2023). It's About Time: Exploring the dose-dependent effects of active learning on students of different social personalities in an upper-level biology course. *Journal of College Science Teaching*. <https://doi.org/10.1080/0047231X.2024.2316378>
- Will I, Beckerson WC, de Bekker C. (2023). Using machine learning to predict protein-protein interactions between a zombie ant fungus and its carpenter ant host. *Scientific Reports* 13, 13821. <https://doi.org/10.1038/s41598-023-40764-8>
- Beckerson WC, Krider C, Mohammad UA, de Bekker C. (2023). 28 Minutes Later: Investigating the role of aflatrem-like compounds in *Ophiocordyceps* parasite manipulation of zombie ants. *Animal Behaviour* 203, 225-240. <https://doi.org/10.1016/j.anbehav.2023.06.011>
- De Bekker C, Beckerson WC, Carolyn Elya. (2021). Mechanisms Behind the Madness: How do zombie-making fungal entomopathogens affect host behavior to increase transmission? *mBio* 12(5), e01872-21. <https://doi.org/10.1128/mBio.01872-21>
- Beckerson WC, Anderson JO, Perpich JD, Yoder-Himes D. (2020). An Introvert's Perspective: Analyzing the impact of active learning on social personalities in an upper-level biology course. *Journal of College Science Teaching* 49(3), 47-57. https://doi.org/10.2505/4/jcst20_049_03_47
- Beckerson WC, de la Vega RCR, Hartmann FE, Duhamel M, Giraud T, Perlin MH. (2019). Cause and Effectors: Whole genome comparisons reveal shared but rapidly evolving effector sets among host-specific plant-castrating fungi. *mBio* 10:e02391-19. <https://doi.org/10.1128/mBio.02391-19>
- Kuppireddy VS, Uversky VN, Toh SS, Tsai M-C, Beckerson WC, Cahill CC, Carman B, Perlin MH. (2017). Identification and initial characterization of effectors of an anther smut fungus and the potential host target proteins. *International Journal of Molecular Science* 18, 2489. <https://doi.org/10.3390/ijms18112489>

Peer Reviewed Teaching Lessons:

- Beckerson WC. (2022). Small Organisms with Big Consequences: Understanding the microbial world around us. *CourseSource*. <https://doi.org/10.24918/cs.2022.27>

Textbooks:

- Beckerson WC, Laraba I, Torres-Cruz TJ, Steinkraus D, Hajek A. (2024). *Mechanisms of Host Manipulation and Mimicry in Fungi*. In: Haelewaters D. (ed.) *Biodiversity and Evolution of Fungal Parasites and Pathogens* (pp. xxx-xxx). Amsterdam, Netherlands: Elsevier. - **In Preparation**
ISBN: 978032885324
- Savchenko K, Beckerson WC, Aime C. (2024). *Economically Important Plant Parasites: Rusts and smuts*. In: Haelewaters D. (ed.) *Biodiversity and Evolution of Fungal Parasites and Pathogens* (pp. xxx-xxx). Amsterdam, Netherlands: Elsevier. - **In Preparation**
ISBN: 978032885324
- Perlin MH, Beckerson WC, Gopinath A, Cobbs G. (2019). *Molecular and Cellular Genetics: Laboratory Studies*. San Diego, California United States: Cognella Academic Publishing. **2nd Edition**
ISBN: 9781793514943
- Perlin MH, Beckerson WC, Gopinath A, Cobbs G. (2018). *Molecular and Cellular Genetics: Laboratory Studies*. San Diego, California United States: Cognella Academic Publishing. **1st Edition**
ISBN: 9781516528288

FUNDING

Extramural Funding and Fellowships (\$147,605 & €203,464):

HORIZON Marie Skłodowska-Curie Actions Postdoctoral Fellowship: NL (€203,464) 📅08/2022

Grant agreement ID: I01108298 (DOI: 10.3030/I01108298)

NSF Postdoctoral Research Fellowship in Biology (PRFB): USA Award number (FAIN): 2109435	(\$138,000)	📅06/2021
GSA Fungal Genetics Conference Travel Award: USA	(\$250)	📅03/2019
DAAD Short Term Research Grant: DE	(\$4,075)	📅11/2018
Chateaubriand STEM Fellowship: FR	(\$5,280)	📅05/2016
Intramural Funding: University of Central Florida - ♡ FL, USA (\$55,000): Preeminent Postdoctoral Program Co-written with: Dr. Charissa de Bekker	(\$55,000)	📅08/2020
Intramural Funding: University of Louisville - ♡ KY, USA (\$3,236): Biology 1970's Cohort Fund Grant Graduate Student Council Travel Grant Graduate Network of Arts and Science Travel Grant Graduate Student Council Travel Grant Arts & Science Research & Creative Activities Grant Biology Graduate Student Association Travel Grant Joint Arts & Science Research & Creative Activities Grant Co-written with: Venkata S. Kuppireddy Graduate Network of Arts and Sciences Research Fund	(\$200) (\$350) (\$250) (\$350) (\$500) (\$175) (\$1,311) (\$100)	📅06/2019 📅01/2019 📅01/2019 📅05/2018 📅04/2018 📅02/2018 📅04/2016 📅01/2016
Significant Contributions to Other Grants (\$313,389): NSF Gordon Research Seminar Standard Grant Co-written with: Andrew Swafford NSF Track I International Research Experience for Students Co-written with: (PI) Dr. Michael H. Perlin Award number: I82485I	(\$16,500) (\$296,889)	📅03/2024 📅08/2018

CONFERENCE PRESENTATIONS

Conference Chair:

Gordon Research Seminar: Cellular Molecular Fungal Biology 2024 - ♡ NH, USA
Chair with co-chair Andrew Swafford 📅07/2022-06/2024

Oral Presentations:

8th Conference on Physiology of Yeasts and Filamentous Fungi - ♡ Cork, IR
Using Yeast to heterologously study the behavior-modifying effects of recalcitrant zombie fungi biomolecules 📅06/2023

Gordon Research Seminar on Cellular and Molecular Fungal Biology - ♡ NH, USA
28 Minutes Later: Analyzing the role of aflatrem-like effectors in the behavioral manipulation of Zombie Ants 📅06/2022

Animal Behavior Society Online Conference - ♡ Online
28 Minutes Later: The role of secreted effectors in the behavioral manipulation of zombie ants 📅08/2021

Ruhr-Universität Bochum *Microbotryum* Symposium - ♡ Bochum, DE
An Unorthodox CRISPR Approach for an Unorthodox Fungus 📅07/2019

Asilomar Fungal Genetics Conference: Smut Convergence - ♡ CA, USA
Cause and Effectors: Secretome comparison of members from the anther-smut pathogen species complex, *Microbotryum violaceum* 📅03/2019

Gordon Research Seminar on Cellular and Molecular Fungal Biology - ♡ NH, USA
The First Cut is the Deepest: Implementing CRISPR Cas9 as a transformation system for site specific gene disruptions in the fungal pathogen species complex *Microbotryum violaceum* 📅06/2018

Kentucky Academy of Science Conference - ♡ KY, USA
Identifying unique small-secreted proteins in divergent species of the fungal pathogen complex *Microbotryum violaceum* 📅11/2016

Ruhr-Universität Bochum *Microbotryum* Symposium - ♡ Bochum, DE 📅06/2016

Analyzing the role of protein-protein interactions in host/pathogen co-evolution

Poster Presentations:

- European Conference on Fungal Genetics - ♡ Innsbruck, AT** 📅03/2023
28 Minutes Later: A proof of concept for testing behavior-manipulating compounds from zombie-making fungi
- Gordon Research Conference on Cellular and Molecular Fungal Biology - ♡ NH, USA** 📅06/2022
28 Minutes Later: Analyzing the role of aflatoxin-like effectors in the behavioral manipulation of Zombie Ants
- National Association of Biology Teachers: Professional Conference - ♡ GA, USA** 📅11/2021
It's About Time: Exploring the dose-dependent effects of active learning on student social personality in an upper-level biology course
- National Association of Biology Teachers: Professional Conference - ♡ GA, USA** 📅11/2021
The Zombie Fungus Foray: Community science outreach using iNaturalist to discover Zombie Ants
- National Association of Biology Teachers: Professional Conference - ♡ IL, USA** 📅11/2019
An Introvert's Perspective: Analyzing the impact of active learning on multiple levels of class social personalities in an upper-level biology course
- Asilomar Fungal Genetics Conference - ♡ CA, USA** 📅03/2019
Cause and Effectors: Secretome comparison of members from the anther-smut pathogen species complex, *Microbotryum violaceum*
- Gordon Research Conference on Cellular and Molecular Fungal Biology - ♡ NH, USA** 📅06/2018
The First Cut is the Deepest: Implementing CRISPR Cas9 as a transformation system for site specific gene disruptions in the fungal pathogen species complex *Microbotryum violaceum*

PROFESSIONAL PRESENTATIONS

- Universiteit Utrecht Faculty Pedagogical Journal Club - ♡ Utrecht, NL** 📅02/2024
The dose-dependent effect of group-based active learning on students with different social personalities.
- Arkansas State University Queretaro STEM Week Invited Speaker - ♡ Queretaro, MX** 📅02/2023
Real-life Zombies and Where to Find Them: How fungi manipulate animal behavior!
- Utrecht U. Molecular Life Sciences Honors Program Invited Speaker - ♡ Utrecht, NL** 📅10/2022
Observations from the Crypt: The science behind zombie ants and their fungal parasites
- University of Oxford Invited Speaker - ♡ Oxford, UK** 📅09/2022
28 Minutes Later: The role of secreted effectors in the behavioral manipulation of zombie ants
- University of Louisville Invited Speaker Series - ♡ KY, USA** 📅09/2020
Comparative secretomics and functional analysis of effectors utilized by the *Microbotryum* genus of anther-smut fungal pathogens, and their role in host-specificity
- University of Central Florida Invited Speaker Series - ♡ FL, USA** 📅09/2020
Comparative secretomics and functional analysis of effectors utilized by the *Microbotryum* genus of anther-smut fungal pathogens, and their role in host-specificity
- Georgetown College Invited Speaker Seminar - ♡ KY, USA** 📅11/2019
Cause and Effectors: How rapidly evolving effectors lead to host-specificity between *Microbotryum* and Caryophyllaceae
- Belknap Academic Building Anniversary Event - ♡ KY, USA** 📅08/2019
An Introvert's Perspective: Analyzing the impact of active learning on multiple levels of class social personalities in an upper-level biology course
- Ruhr-Universität Bochum Invited Speaker - ♡ Bochum, DE** 📅06/2019
The History and Future of CRISPR Cas9
- Ruhr-Universität Bochum Invited Speaker - ♡ Bochum, DE** 📅06/2018
The First Cut is the Deepest: CRISPR Cas9 and how to get started
- Georgetown College Invited Speaker Seminar - ♡ KY, USA** 📅10/2016
Here and Back Again: A GCPALS tale
- Université du Paris Sud Chateaubriand Fellowship Invited Speaker - ♡ Orsay, FR** 📅05/2016
Identification of Small-Secreted Proteins in the *Microbotryum* genus

PROFESSIONAL DEVELOPMENT & SERVICES

Training/Workshops/Conferences:

Teaching and Learning Inspiration Days Conference - ♀ Universiteit Utrecht, NL		📅01/2024-02/2024
Jan 29 th	Education with societal partners in practice	
Jan 30 th	AR/VR: Experience the future of learning	
	Evidence-informed educational change	
Feb 1 st	Using open educational resources	
Parametric Modeling for 3D Printing w/ Fusion – Basics Workshop - ♀ Utrecht, NL		📅01/2024
Fused Deposition Modeling for 3D Printing – Basics Workshop - ♀ Utrecht, NL		📅12/2023
2023 Royal Dutch Association for Microbiology Mycology Conference - ♀ Utrecht, NL		📅11/2023
“Fungal anarchy – do fungi obey the rules of the game?”		
Public Engagement Academy for Postdocs - ♀ Utrecht University, NL		📅11/2023-07/2024
Founding member of an academy to teach and facilitate outreach by postdoctoral scholars including the following modules:		
Jan 9 th	Impact measurements	
2024	Public communication skills	
2024	Engaging children	
2024	Media training Popular science writing,	
2024	Dialogue training	
Wetenschnapps 10: Public Engagement - recognition and rewards in practice - ♀ UU, NL		📅11/2023
Universiteit Utrecht Professional Media Communication Training - ♀ UU, NL		📅11/2023
2022 Royal Dutch Association for Microbiology Mycology Conference - ♀ Utrecht, NL		📅11/2022
“We Will Meet Again: Fungi and the world around them”		
NSF Improving Undergraduate STEM Education Program - ♀ UCF, USA		📅03/2022-05/2022
2022	The Inclusive STEM Teaching Project	
Collaborative Institutional Training Initiative - ♀ University of Central Florida, USA		📅01/2021-03/2021
2021	Human Subjects Research – Group 2	
	Social/Behavioral Research Investigators and Key Personnel	
2021	Communicating Research Findings	
2021	Conflict of Interest	
NIH Grant Writing Virtual Conference - ♀ University of Central Florida, USA		📅05/2020
Training with Remote Teaching Options for COVID-19 - ♀ University of Louisville, USA		📅02/2020
Research Academy RUHR: Open Access Science Workshop - ♀ Universität Bochum, DE		📅08/2019
Faculty Search Committee: Diversity Training - ♀ University of Louisville, USA		📅02/2019

Professional Societies/Organizations:

Animal Behavior Society		📅08/2021-2023
National Association of Biology Teachers		📅11/2019-2023
2021-2022	Justices, Equity, Diversity, and Inclusion Committee	
2019-2020	Community Science Committee	
Genetics Society of America		📅03/2018-current
2022	Science Communication Virtual Networking Moderator for the 3I st FGC	
Kentucky Academy of Science		📅11/2014-7/2020

University Services:

Utrecht Selective Life Sciences Extra Curricular Track selection committee - ♀ UU, NL		📅11/2023-1/2024
2022 UofL Biology Alumni Advice Panel - ♀ University of Louisville, USA		📅11/2022
2021 UofL Biology Alumni Advice Panel - ♀ University of Louisville, USA		📅08/2021
Committee member for the UCF Invited Speaker Series - ♀ UCF, USA		📅08/2021-4/2022
Diversity, Equity, and Inclusion: Classroom Isolation Subcommittee - ♀ UCF, USA		📅02/2021
Biology Undergraduate Student Association: Graduate Student Panel - ♀ UofL, USA		📅10/2019
Biology Faculty Search Committee: Graduate Student Representative - ♀ UofL, USA		📅02/2019
Student Grievance & Discipline Committee - ♀ University of Louisville USA		📅08/2016-4/2017
2016-2017	Natural Science Division Representative	

Graduate Network of Arts & Sciences - ♡ University of Louisville, USA	📅08/2016-4/2018
2017-2018	Vice President
2017	Natural Science Rep. for Grant Review Committee
2016-2018	Department of Biology Representative
Biology Graduate Student Association - ♡ University of Louisville, USA	📅08/2015-7/2020
2019-2020	President
2018-2019	Graduate Student Rep.
2016-2017	Social Chair
2016 & 2020	Webmaster
2016-2020	Member

Community Services:

Florida Undergraduate Research Conference Abstract Reviewer - ♡ FL, USA	📅06/2021
UCF Student Scholar Symposium for Undergraduate Research Judge - ♡ FL, USA	📅03/2021
DuPont Manual Regional Science Fair Judge - ♡ KY, USA	📅06/2019
DuPont Manual Regional Science Fair Judge - ♡ KY, USA	📅06/2018
Louisville Regional Science & Engineering Fair Judge - ♡ KY, USA	📅03/2018

Peer Review Services:

Genome Biology and Evolution	1 primary research article	📅2024
Molecular Ecology	2 primary research articles	📅2022-2023
CourseSource	3 primary research articles	📅2020-2024
	1 conference publication	
Society for Molecular Plant-Microbe Interactions	1 primary research article	📅2020

TEACHING EXPERIENCE

Teaching Qualifications:

In addition to my hands on experience as an instructor, I have also received formal training in the United States of America and the European Union.

Universiteit Utrecht Teaching Qualification Program (UTQ) - ♡ Utrecht University, NL 📅02/2024-current

Official certification can be found at: <https://www.WilliamCBeckersonPhD.com>

Formal certification to teach at the university level in the Netherlands with the following modules:

2024	Formulating Learning Objectives
2024	Formulating Learning Objectives
2024	Reflective Teaching Practices
2024	Peer-review strategies

Preparing Tomorrow's Faculty Program - ♡ University of Central Florida, USA 📅08/2021-12/2021

Official certification can be found at: <https://www.WilliamCBeckersonPhD.com>

A course on teaching at the college level for UCF Graduate Students and postdocs including the following modules:

2021	Student learning and motivation
2021	Integrated course design
2021	Teaching pedagogies
2021	Assessment and feedback
2021	Course climate
2021	Career development

Teaching Experience:

MSCA Postdoctoral Research Fellow - ♡ Universiteit Utrecht, NL 📅08/2023-07/2025

MBLS-I07: Functional Biology

2 sections	120 min/class	5 & 5 students	Once/month	Spring 2024
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B-MEBIFB19: Fungal Biology

I section	105 min/class	13 students	Twice/week	Autumn 2023
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NSF Postdoctoral Research Fellow - ♡ University of Central Florida, USA

🏠08/2021-07/2023

Concurrent teaching for the duration of a PRFB fellowship is prohibited as outlined on pg. 15 of the administrative guide for the Postdoctoral Research Fellowships in Biology program:

<https://www.nsf.gov/pubs/2021/nsf21081/nsf21081.pdf>

Adjunct Faculty of Record - ♡ Georgetown College, USA

🏠08/2019-04/2020

BIO 100: Introductory Biology for Non-Majors (100% Remote Learning)					
I section	75 min/class	24 students	Four/week	Summer 2020	
BIO 111: Introductory Biology for Majors					
I section	75 min/class	24 students	Twice/week	Autumn 2019	
BIOL 111: Introductory Biology Lab					
I section	110 min/class	24 students	Once/week	Autumn 2019	

Invited Group Lecturer for Biotechnology Methods - ♡ University of Louisville, USA

🏠08/2018-12/2018

BIOL 416: Biotechnology Methods					
2 sections	240 min/class	4 & 5 students	Twice/week	Autumn 2018	

Teaching Innovation Learning Lab in Microbiology - ♡ University of Louisville, USA

🏠08/2017-12/2019

BIO 357: General Microbiology					
I section	75 min/class	64 students	Eight/Semester	Autumn 2019	
BIO 357: General Microbiology					
I section	75 min/class	49 students	Four/Semester	Autumn 2018	
BIO 357: General Microbiology					
I section	75 min/class	43 students	Four/Semester	Spring 2018	
BIO 357: General Microbiology					
I section	75 min/class	65 students	Four/Semester	Autumn 2017	

Graduate Teaching Assistant - ♡ University of Louisville, USA

🏠08/2015-04/2020

BIOL 331: Genetics and Molecular Biology					
2 sections	110 min/class	20 & 20 students	Twice/week	Spring 2020	
BIOL 331: Genetics and Molecular Biology					
2 sections	110 min/class	20 & 22 students	Twice/week	Autumn 2019	
BIOL 331: Genetics and Molecular Biology					
2 sections	110 min/class	20 & 22 students	Twice/week	Spring 2019	
BIOL 331: Genetics and Molecular Biology					
I section	110 min/class	19 students	Twice/week	Autumn 2018	
BIOL 104: introduction to Biological Systems					
2 sections	110 min/class	14 students	Three/week	Summer 2018	
BIOL 331: Genetics and Molecular Biology					
2 sections	110 min/class	20 & 21 students	Twice/week	Spring 2018	
BIOL 331: Genetics and Molecular Biology					
I section	110 min/class	8 students	Twice/week	Autumn 2017	
BIOL 258: Microbiology					
2 sections	90 min/class	15 & 6 students	Four Days/week	Summer 2017	
BIOL 331: Genetics and Molecular Biology					
2 sections	110 min/class	17 & 21 students	Twice/week	Spring 2017	
BIOL 331: Genetics and Molecular Biology					
I section	110 min/class	16 students	Twice/week	Autumn 2016	
BIOL 244: Principles of Biology					
2 sections	110 min/class	27 & 28 students	Twice/week	Spring 2016	
BIOL 104: Introduction to Biological Systems					
3 sections	110 min/class	33, 33, & 33 students	Once/week	Autumn 2015	

STUDENTS MENTORED

HONORS & AWARDS

UU News: MSCA Fellowships for five Universiteit Utrecht researchers - ♡ Utrecht, NL https://www.uu.nl/en/news/marie-skłodowska-curie-actions-fellowships-for-five-utrecht-university-researchers	📅03/2023
UCF Today: Stories of Impact + Innovation Spotlight - ♡ University of Central Florida, USA https://www.ucf.edu/news/ucf-doctoral-scholar-named-national-science-foundation-biology-fellow/	📅02/2021
Graduate Dean's Citation - ♡ University of Louisville, USA	📅12/2020
Graduate Student Publication Award - ♡ University of Louisville, USA	📅04/2020
Graduate School of Arts and Sciences Student Spotlight - ♡ University of Louisville, USA https://louisville.edu/graduate/student-spotlight/student-spotlight-february-2020	📅03/2020
Introductory Biology Lab Development Award - ♡ University of Louisville, USA	📅07/2019
Graduate Student Research Presentation Award - ♡ University of Louisville, USA	📅04/2019
Biology Department Service Award - ♡ University of Louisville, USA	📅04/2019
College of Arts and Science Student Profile - ♡ University of Louisville, USA https://louisville.edu/artsandsciences/academics/graduate-education/student-profiles/beckerson	📅02/2016

OUTREACH

hyperlinks imbedded in the logos

Virtual Reality Videogame Project: **Zombie Ants VR**

-Storyboard Developer/Voice Acting Coach-

Website: <https://www.williamcbeckersonphd.com/copy-of-research>

Steam download: https://store.steampowered.com/app/2416150/Zombie_Ants_VR/

Zombie Ants VR is a short (5-10 minute) educational experience that takes the player through the life cycle of *Ophiocordyceps*, a fungus that drives creatures (in this case ants) to change their behavior in order to propagate the fungus then ultimately kills them. This fungus was a large inspiration for the video game series Last of Us and is often affectionately referred to as the "Zombie Fungus".



Community Science Initiative: **the Zombie Fungus Foray**

-Creator-

Website: <https://wbeckerson.wixsite.com/thezombiefungusforay>

iNaturalist: <https://www.inaturalist.org/projects/the-zombie-fungus-foray>



K-12 Classroom Outreach:

- 📅 10/2022 Amsterdam International Community School - 📍 Amsterdam, NL
- 📅 10/2021 Wharton High School: National Honor Society - 📍 Tampa, FL, USA
- 📅 10/2021 Freedom High School: Environmental Science Periods I-7 - 📍 Tampa, FL, USA
- 📅 10/2021 Wharton High School: SPLASH Club, and Biology Sections I-6 - 📍 Tampa, FL, USA
- 📅 2/2021 Mica Mountain High School: Sections III & VI - 📍 Tucson, AR, USA
- 📅 10/2020 Jackson Heights Middle School: Ecology - 📍 Oviedo, FL, USA
- 📅 10/2020 Oviedo High School: Sophomore Biology Sections 2, 3, 6, & 7 - 📍 Oviedo, FL, USA
- 📅 10/2020 Oviedo High School: AP Biology Sections I & II - 📍 Oviedo, FL, USA



iNaturalist Curator:

- 📅 8/2020-current Website curator for the *Ophiocordyceps unilateralis* species complex
- 📅 8/2020 The Zombie Fungus Foray Project Creator



Seminole County Parks Partnership:

- 📅 10/2021 Chuluota Wilderness Area Guided Hike for Zombie Ants - 📍 Geneva, FL, USA
- 📅 7/2021 Eco Camp: Grossology Week Guide to Zombie Ants - 📍 Geneva, FL, USA
- 📅 6/2021 Eco Camp: Biology Bootcamp Guide to Zombie Ants - 📍 Geneva, FL, USA



Orlando Science Center Partnership:

- 📅 2/2022 Otronicon: 3-day Alpha testing of ZombieAntVR with kids - 📍 Orlando, FL, USA
- 📅 10/2021 Pumpkins and Protons Halloween Party Exhibit - 📍 Orlando, FL, USA
- 📅 10/2019 Spooky Science Week Exhibit: Real-life Zombie Ants! - 📍 Orlando, FL, USA



stemCONNECT Partnership:

- 📅 10/2021 Spooky Themed Month Virtual Presentation - 📍 Orlando, FL, USA
Real-life Zombies and Where to Find Them
- 📅 4/2021 EARTH DAY Virtual Presentation - 📍 Orlando, FL, USA
Real-life Zombies and Where to Find Them



TikTok:

- 📅 6/2021-2022 @TheZombieFungusForay <https://www.tiktok.com/@thezombiefungusforay?lang=en>

Other Outreach:

Pint of Science Festival - 📍 Utrecht, NL

📅 05/2024

A Fungus and its Zombie Ant: A very real example of zombie-making parasites

Adaptation of our published research for Science Journal for Kids and Teens - 📍 TX, USA 📅 11/2023

- <https://www.sciencejournalforkids.org/articles/how-do-some-fungi-turn-insects-into-zombies/>
Museum of Natural Sciences in Brussels: International Microorganism Day - ♡ BE 10/2023
 In collaboration with the Young Belgian Society for Microbiology
- Guest on Val 202's Frekvenca X show about "The Last of Us"** - ♡ SI 03/2023
<https://val202.rtvsl.si/podkast/frekvenca-x/31057643/1749+1558>
- Guest on NPR's The Colin McEnroe Show about "The Last of Us"** - ♡ CT, USA 02/2023
<https://www.ctpublic.org/show/the-colin-mcenroe-show/2023-02-06/the-fungus-among-us>
- Correspondent for Inverse on the science behind "The Last of Us"** - ♡ NY, USA 01/2023
<https://www.inverse.com/science/last-of-us-hbo-zombie-science>
- Correspondent for Newsweek on the science behind "The Last of Us"** - ♡ NY, USA 01/2023
<https://www.newsweek.com/cordyceps-fungus-zombie-last-us-real-hbo-1774684>
- Orlando MegaCon Presenter** - ♡ FL, USA 05/2022
 Examining the Science Behind Zombie Movies
- Orlando Taste of Science - Science Festival, Scientists Inc.** - ♡ FL, USA 04/2022
 Real-life Zombies and Where to Find Them
-  **TikTok:** 12/2021-082022
 @aBitofBiology <https://www.tiktok.com/@abitofbiology>
- Orlando MegaCon Panelist** - ♡ FL, USA 08/2021
 The Last Damn Zombie Science Panel You'll Ever Need!
- Interview a Biologist** - ♡ VT, USA 10/2021
 with Stacey Grimaldo Garcia of Middlebury College
- Skype a Scientist Live: Orlando** - ♡ FL, USA 02/2021
 Spooky Science: Real Life Zombies and Where to Find Them
<https://www.youtube.com/watch?v=7WGJZG4DjjQ>
- Beer with a Scientist: Monnik Beer Company** - ♡ KY, USA 03/2020
 Our Friends the Fungi: The many types of fungi and the history of how we've used them
- Skype a Scientist** 04/2019-10/2021
 10/2020 Creekside Middle School: Sixth Grade Class – Bentonville, AR, USA
 5/2019 Marie Curie Institute: Fourth and Fifth Grade Class – Amsterdam, NY, USA
 5/2019 Corry Area High School: Ninth Grade Class – Corry, PA, USA
 4/2019 Newark Central: Second Grade Class – Newark, NY, USA
 4/2019 E.K. Powe Elementary School: First Grade Class (AKA the Sea Crew) – Durham, NC, USA
 4/2019 Annunciation Catholic School: Seventh Grade Class – Denver, CO, USA
- Guest Speaker at University of Louisville: Meet the Professor** - ♡ KY, USA 04/2019
 Science Information Literacy & Oral Communication
- Guest Speaker at Lexington Christian Academy High School** - ♡ KY, USA 12/2018
 The history of genetic modification of our food
- Guest Speaker at Lexington Christian Academy High School** - ♡ KY, USA 02/2016
 What is a GMO?
- ExBEERiment: Socialize with Science at the Louisville Science Center** - ♡ KY, USA 09/2016
 The science of brewing beer

REFERENCES

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