

# Zoë R. F. Verlaak

CURRICULUM VITAE

## CONTACT INFORMATION

Email ZVerlaak@csum.edu

## EDUCATION

<b>2013 – 2019</b>	<b>Ph.D. in Geosciences</b>
Institution	Florida International University, Miami, Florida
Dissertation	“Benthic Foraminiferal Assemblages from Marshes and Mangroves in the Everglades (South Florida, USA), and their Application as Proxies for Habitat Shifts due to Sea Level Rise”; 153 pages; defense: March 2019.
Advisor	Professor Laurel S. Collins
<b>2009 – 2011</b>	<b>Master of Science in Geology (cum laude)</b>
Institution	Ghent University, Ghent, Belgium
Thesis	“A Detailed Analysis of Laminations in the Late Pleistocene Sedimentary Record of Laguna Parrillar, Southern Patagonia, Chile”; 176 pages; defense: August 2011.
Advisor	Professor Marc De Batist and Dr. Maarten Van Daele
<b>2004 – 2009</b>	<b>Bachelor of Science in Geology</b>
Institution	Ghent University, Ghent, Belgium
Senior Project	“Onderzoek van de relatie tussen de morfologische variatie van dinoflagellatencysten en saliniteit” (Research on the Relationship Between Morphological Variation of Dinoflagellate Cysts and Salinity); 30 pages; defense: November 2008.
Advisor	Professor Stephen Louwye and Dr. Kenneth Mertens

## PROFESSIONAL CERTIFICATIONS

<b>April 2022</b>	<b>Microcredential in Promoting Active Learning Online</b>
Institution	The Association of College and University Educators and the American Council on Education – online course

## TEACHING EXPERIENCE

<b>California State University Maritime Academy</b>	
Fall 2023	<b>Instructor, Chemical Oceanography Lecture</b> 1 class, 1 semester
Fall 2023	<b>Instructor, Historical Geology Lecture</b> 1 class, 1 semester
Fall 2023	<b>Instructor, Chemistry Laboratory</b> 2 classes, 1 semester
<b>Portland State University</b>	
Spring 2023	<b>Instructor, Historical Geology Lecture (online)</b> 1 class, 1 quarter
Spring 2022	<b>Instructor, Historical Geology Lecture (hybrid)</b> 1 class, 1 quarter
<b>Worcester State University</b>	
Spring 2020	<b>Instructor, Oceanography Lecture</b> 1 class, 1 semester
Spring 2020	<b>Instructor, Physical Geology Lecture with Laboratory</b> 1 class, 1 semester
Spring 2020	<b>Instructor, Physical Geology Lecture</b> 1 class, 1 semester
Fall 2019	<b>Instructor, Physical Geology Lecture with Laboratory</b> 2 classes, 1 semester
Fall 2019	<b>Instructor, Physical Geography Lecture</b> 1 class, 1 semester
<b>Florida International University</b>	
Spring 2014 – Spring 2018	<b>Instructor, History of Life Laboratory</b> 18 classes, 12 semesters
Spring 2018	<b>Instructor, Physical Geology / Introduction to Earth Sciences Laboratory</b>

Fall 2015 1 class, 1 semester  
**Instructor, Physical Geology Laboratory**  
 Fall 2013 & Summer 2014 1 class, 1 semester  
**Instructor, Introduction to Earth Sciences Laboratory**  
 Spring 2014 3 classes, 2 semesters  
**Teaching Assistant, Earth Through Time Lecture**  
 1 class, 1 semester

#### APPOINTMENTS

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**2023, August – 2024, May** **California State University Maritime Academy**  
 Department of Sciences and Mathematics  
 Vallejo, California  
 Visiting Assistant Professor

**2023, March – June** **Portland State University**  
 Department of Geology  
 Portland, Oregon  
 Adjunct Instructor in Geology

**2022, March – June** **Portland State University**  
 Department of Geology  
 Portland, Oregon  
 Adjunct Instructor in Geology

**2019, August – 2020, May** **Worcester State University**  
 Department of Earth, Environment, and Physics  
 Worcester, Massachusetts  
 Visiting Assistant Professor

**2019, June – 2023, August** **Florida International University**  
 Department of Earth and Environment  
 Miami, Florida  
 Postdoctoral Associate

#### CURRENT PROJECTS

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**2021, October – Present** **Western Science Center (Hemet, California)**  
 Broader Impacts Program  
 Preparation of materials for an exhibit on my Ph.D. research.

**2021, November – Present** **University of Texas at Austin (Austin, Texas)**  
 Department of Anthropology  
 Analysis and interpretation of benthic foraminiferal assemblages of sediment cores from a Puerto Rican lagoon for a multiproxy, collaborative study.

#### PROFESSIONAL ACTIVITIES

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**2020, January – December** **Cushman Foundation for Foraminiferal Research**  
 Board member as early career director

**2020, October** **Geological Society of America Annual Meeting**  
 Oceans and Climates through Earth History: From Proxy Reconstructions to Model Assessments  
 GSA Connects Online  
 Session Co-chair

**2019, November – 2020, May** **Department of Earth, Environment, and Physics, Worcester State University**  
 Marketing committee member

**2019, September** **Geological Society of America Annual Meeting**  
 Cushman Foundation Symposium: Addressing Coastal Concerns with Micropaleontological Applications to Environmental Proxies, Reconstructions, and Deep-Time Analogs  
 Phoenix, Arizona  
 Session Co-chair

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## PROFESSIONAL EXPERIENCE

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- 2017, July – 2018, May **Florida International University**  
Department of Earth and Environment  
Miami, Florida  
Supervisor and Trainer for Laboratory Assistants
- 2012, February – May **United States Geological Survey and National Park Service**  
International Volunteers in Parks Program  
Everglades National Park, Daniel Beard Research Center  
Homestead, Florida  
Research Intern for Gordon Anderson (USGS)
- 2010, August **Ghent University**  
Renard Centre of Marine Geology  
Ghent, Belgium  
Laboratory Assistant for Dr. David Van Rooij

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## INVITED TALKS

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- 2022, March **Portland State University**  
Department of Geology, Seminar Series  
*The Benthic Foraminiferal Record of Sea Level Driven Paleoenvironmental Change in Florida's Coastal Everglades*

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## PEER-REVIEWED PUBLICATIONS

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- 2023 **Verlaak, Z.R.F., and Collins, L.S.**, 2023. History of Paleoenvironmental Changes in the Southwestern Everglades using Foraminiferal Assemblages. 29 p. *“in progress, to be submitted to Palaeogeography, Palaeoclimatology, Palaeoecology”*
- 2021 **Verlaak, Z.R.F., and Collins, L.S.**, 2021. Environmental Controls on the Distribution of Modern Benthic Foraminifera in the Florida Everglades for Their Use as Paleoenvironmental Indicators. *Journal of Foraminiferal Research*, Vol. 51, p. 182–209, doi: 10.2113/gsjfr.51.3.182
- 2019 **Verlaak, Z.R.F., Collins, L.S., and Hayek, C.L.-A.**, 2019. Effects of Infaunal Foraminifera on Surface and Subsurface Assemblages in the Southwestern Everglades, USA: Baseline Study for Paleoenvironmental Analyses. *SEPM Special Publication*, no. 111, p. 3–14, doi: 10.2110/sepm.111.03

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## PRESENTATIONS

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- 2021 **Verlaak, Z.R.F., and Collins, L.S.**, 2021. Use of Everglades Foraminifera as Paleoenvironmental Indicators of Salinity. Greater Everglades Ecosystem Restoration, Virtual Meeting, *GEER 2021 Poster Directory*, p. 3, <https://conference.ifas.ufl.edu/geer/docs/2021/GEER-2021-Poster-Directory.pdf>
- 2020 **Verlaak, Z.R.F., and Collins, L.S.**, 2020. Environmental Controls on the Distribution of Modern Benthic Foraminifera in the Florida Everglades for Their Use as Paleoenvironmental Indicators. Geological Society of America Annual Meeting, Connects Online, *Geological Society of America Abstracts with Programs*, Vol 52, No. 6, doi: 10.1130/abs/2020AM-355074, <https://gsa.confex.com/gsa/2020AM/meetingapp.cgi/Paper/355074>
- 2019 **Verlaak, Z.R.F., and Collins, L.S.**, 2019. The History and Prospects of Habitat Change Due To Sea Level Rise for Florida's Coastal Everglades Using Benthic Foraminiferal Assemblages. Geological Society of America Annual Meeting, Phoenix, Arizona, *Geological Society of America Abstracts with Programs*, vol. 51, no. 5, doi: 10.1130/abs/2019AM-335746, <https://gsa.confex.com/gsa/2019AM/meetingapp.cgi/Paper/335746>
- 2019 **Verlaak, Z.R.F., and Collins, L.S.**, 2019. History of Habitat Change due to Sea Level Rise using Benthic Foraminiferal Assemblages, and its prospects for the Marsh- and Mangrove-fringed Coastline of the Everglades (South Florida, USA). International Association of Sedimentologists Annual Meeting, Rome, Italy.
- 2018 **Verlaak, Z.R.F., and Collins, L.S.**, 2018. History of Paleoenvironmental Changes in the Southwestern Everglades (Florida, USA) Using Foraminiferal Assemblages. Geological Society of America Annual Meeting, Indianapolis, Indiana, *Geological Society of America Abstracts with Programs*, vol. 50, no. 6, doi:

- 10.1130/abs/2018AM-324197,  
<https://gsa.confex.com/gsa/2018AM/meetingapp.cgi/Paper/324197>
- 2017 **Verlaak, Z.R.F., and Collins, L.S.**, 2017. Spatial Distribution of Modern Foraminiferal Assemblages in the Southwestern Everglades, Florida, USA. Geological Society of America Annual Meeting, Seattle, Washington, *Geological Society of America Abstracts with Programs*, vol. 49, no. 6, doi: 10.1130/abs/2017AM-307395, <https://gsa.confex.com/gsa/2017AM/meetingapp.cgi/Paper/307395>.
- 2017 **Verlaak, Z.R.F., and Collins, L.S.**, 2017. Influence of the Benthic Foraminiferal Biocoenosis on Fossil Assemblages in the Southwestern Everglades. Greater Everglades Ecosystem Restoration, Coral Springs, Florida, *Greater Everglades Ecosystem Restoration: Program and Abstract Book*, p. 369, [http://conference.ifas.ufl.edu/GEER2017/documents/GEER\\_2017\\_Abstract\\_Book\\_online.pdf](http://conference.ifas.ufl.edu/GEER2017/documents/GEER_2017_Abstract_Book_online.pdf)
- 2017 **Verlaak, Z.R.F., and Collins, L.S.**, Influence of the Benthic Foraminiferal Biocoenosis on Fossil Assemblages in the Southwestern Everglades. Geologic Problem Solving with Microfossils IV, North American Micropaleontology Section, Houston, Texas
- 2016 **Verlaak, Z.R.F., and Collins, L.S.**, Influence of the Benthic Foraminiferal Biocoenosis on Fossil Assemblages in the Southwestern Everglades. Florida Coastal Everglades Long Term Ecological Research All Scientists Meeting, Miami, Florida
- 2015 **Verlaak, Z.R.F., Collins, L.S., and Allen, J.**, 2015. Vertical Distribution of Living (Stained) Benthic Foraminifera in the Everglades, South Florida, USA. Geological Society of America Annual Meeting, Baltimore, Maryland, *Geological Society of America Abstracts with Programs*, vol. 47, no. 7, p.132, <https://gsa.confex.com/gsa/2015AM/webprogram/Paper265926.html>

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#### FELLOWSHIPS, AWARDS, AND GRANTS

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| 2019, September            | <b>Joseph A. Cushman Award for Student Travel, GSA Annual Meeting</b><br>Cushman Foundation for Foraminiferal Research, \$891    |
| 2019, June                 | <b>Student Participation Grant, IAS Annual Meeting</b><br>SEPM Society for Sedimentary Geology, \$500                            |
| 2018, May – 2018, December | <b>Dissertation Year Fellowship</b><br>Florida International University, University Graduate School, \$16,600                    |
| 2017, April and October    | <b>Joseph A. Cushman Award for Student Travel, GSA Annual Meeting</b><br>Cushman Foundation for Foraminiferal Research, \$1,714  |
| 2017, August               | <b>Student Participation Grant, Geologic Problem Solving with Microfossils IV</b><br>SEPM Society for Sedimentary Geology, \$300 |
| 2015, November             | <b>Joseph A. Cushman Award for Student Travel, GSA Annual Meeting</b><br>Cushman Foundation for Foraminiferal Research, \$810    |
| 2015, November             | <b>Travel Grant, GSA Annual Meeting</b><br>Geological Society of America, Southeastern Section, \$60                             |

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#### PUBLIC OUTREACH

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| 2024<br>(Forthcoming) | <b>Broader Impacts (Hemet, California)</b><br>A 12-week exhibit on my Ph.D. research.<br>Western Science Center  |
| 2018                  | <b>Earth Day (Miami, Florida)</b><br>Introduction to foraminifera and their use in my research with Q&A regarding climate change in South Florida<br>Hosted by David Brown (Sustain-A-Village) |

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#### PROFESSIONAL AFFILIATIONS

Cushman Foundation for Foraminiferal Research, member  
 Geological Society of America (GSA), member

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#### LANGUAGE PROFICIENCY

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| <b>English</b> | near native / fluent   |
| <b>Dutch</b>   | native speaker   |
| <b>Italian</b> | reading and listening: near native / fluent<br>writing and speaking: good command / good working knowledge |
| <b>French</b>  | basic communication skills / working knowledge   |