

Curriculum Vitae

Victoria E. McCoy, Ph.D.
mccoyv@uwm.edu
Department of Geosciences
University of Wisconsin, Milwaukee
3209 N. Maryland Avenue
Milwaukee, WI 53211
USA
+1 724-312-7925

EDUCATION

- 2015 PhD, Department of Geology and Geophysics, Yale University
Dissertation title: "The formation of concretions and their role in fossilization"
Advisor: Derek E.G. Briggs
- 2010 BS, Department of Geological Sciences, Michigan State University
- 2010 BS, Department of Mathematics, Michigan State University

PROFESSIONAL APPOINTMENTS

- 2019-present University of Wisconsin, Milwaukee, Department of Geosciences
Visiting Assistant Professor
- 2018-2019 University of Bonn, Steinmann-Institut für Geologie, Mineralogie und Paläontologie
Postdoctoral Research Fellow (named postdoctoral researcher funded by a Deutsche Forschungsgemeinschaft grant)
Project title: "The detection of antiherbivore secondary compounds in the fossil record and their potential role in defense against insects"
Advisor: Jes Rust
- 2015-2017 University of Leicester, Department of Geology
Postdoctoral Research Fellow (postdoctoral appointment funded by a Royal Society Newton International Fellowship)
Project title: "Soft tissue preservation in amber"
Advisor: Sarah Gabbott

RESEARCH INTERESTS

I am a paleontologist focusing on understanding the controls on biomolecule fossilization through time and using fossilized biomolecules to investigate paleoecology through time. I currently have two primary research areas: (i) protein preservation and sequencing from fossils in amber; and (ii) fossilized plant chemical defenses and plant-herbivore interactions in ancient ecosystems.

PUBLICATIONS

Peer-reviewed journal articles:

22. **McCoy VE**, Wiemann J, Lamsdell JC, Whalen CD, Lidgard S, Mayer P, Petermann H, and Briggs DEG. *In review*. Chemical signatures of soft tissues distinguish between vertebrates and invertebrates from the Carboniferous Mazon Creek Lagerstätte of Illinois. *Geobiology*.
21. Kaal J, Martín Seijo M, Oliveira O, Wagner-Wysiecka E, **McCoy VE**, Solórzano Kraemer MM, Kerner A, Wenig P, Mayo C, Mayo J. *In review*. Golden artefacts, resin figurines, body adhesives and tomb sediments from the pre-Columbian burial site El Caño (Gran Coclé, Panamá): tracing organic contents using molecular archaeometry. *Journal of Archaeological Science*.
20. McCoy DE, **McCoy VE**, Mandsberg NK, Schneidman AV, Aizenberg J, Prum R, and Haig D. 2019. Structurally assisted super black in colorful peacock spiders. *Proceedings of the Royal Society B* 286: 20190589.
19. **McCoy VE**, Gabbott SE, Penkman K, Collins MJ, Presslee S, Holt J, Grossman H, Wang B, Solórzano Kraemer MM, Delclòs X, and Peñalver, E. 2019. Ancient amino acids from fossil feathers in amber. *Scientific Reports* 9: 6420.
18. **McCoy VE**, Soriano C, Pegoraro M, Luo T, Boom A, Foxman B, Gabbott SE. 2018. Unlocking bias in the amber insect fossil record through experimental decay. *PLoS One* 13: e0195482.
17. **McCoy VE**, Soriano C, and Gabbott SG. 2018. A review of preservational variation of fossil inclusions in amber of different chemical groups. *Earth and Environmental Science Transactions of the Royal Society of Edinburgh* 107:203-211.
16. **McCoy VE**, Boom A, Solórzano-Kraemer MM, and Gabbott SE. 2017. The chemistry of American and African amber, copal, and resin. *Organic Geochemistry* 113:43-54.
15. **McCoy VE**, Asael D, and Planavsky N. 2017. Benthic iron cycling in a high-oxygen environment: Implications for interpreting the Archean sedimentary iron isotope record. *Geobiology*. doi: 10.1111/gbi.12247
14. Cotroneo S, Schiffbauer JD, **McCoy VE**, Wortmann UG, Darroch SAF, Peng Y, and Laflamme M. 2016. A new model of the formation of Pennsylvanian iron carbonate concretions hosting exceptional soft-bodied fossils in Mazon Creek, Illinois. *Geobiology*. doi:10.1111/gbi.12197
13. Darroch SAF, Locatelli ER, **McCoy VE**, Clark ER, Anderson RP, Tarhan LG, and Hull PM. 2016. 'Taphonomic disparity' in foraminifera as a paleo-indicator for seagrass. *Palaaios* 31: 242-258.
12. **McCoy VE**, Saupe EE, Lamsdell JC, Tarhan LG, McMahon S, Lidgard S, Mayer P, Whalen SD, Soriano C, Finney L, Vogt S, Clark EG, Anderson RP, Petermann H, Locatelli ER, and Briggs DEG. 2016. The Tully Monster is a vertebrate. *Nature* 532: 496-499.
11. Poschmann M, Schoennemann B, and **McCoy VE**. 2016. Telltale eyes: The lateral visual systems of Rhenish Lower Devonian eurypterids (Arthropoda, Chelicerata) and their palaeobiological implications. *Palaeontology* 59: 295-304.

10. **McCoy VE**, Lamsdell JC, Poschmann M, Anderson RP, and Briggs DEG. 2015. All the better to see you with: eyes and claws reveal the evolution of divergent ecological roles in giant pterygotid eurypterids. *Biology Letters* 11: 20150564.
9. **McCoy VE**, Young RT, and Briggs DEG. 2015a. Sediment permeability and the preservation of soft-tissues in concretions: an experimental study. *Palaios* 30: 608-612.
8. **McCoy VE**, Young RT, and Briggs DEG. 2015b. Factors controlling exceptional preservation within concretions. *Palaios* 30: 272-280.
7. Anderson RP, **McCoy VE**, McNamara ME, and Briggs, DEG. 2014. What big eyes you have: The ecological role of giant pterygotid eurypterids. *Biology Letters* 10: 20140412.
6. **McCoy VE**. 2014. Concretions as agents of soft tissue preservation: a review. Reading and writing of the fossil record: preservational pathways to exceptional fossilization. *The Paleontological Society Papers* 20:147-162.
5. **McCoy VE**, Strother PK, and Briggs DEG. 2012. A possible tracemaker of *Arthropycus alleghaniensis*. *Journal of Paleontology* 86: 996-1001.
4. Brandt DS, Csonka J, Holycross M, **McCoy VE**, and Seitz M. 2012. In search of the *Arthropycus parallelus* tracemaker. *Palaios* 27: 116-121.
3. **McCoy VE**, and Anstey RL. 2011. Biogeographic associations of Silurian bryozoan genera in North America, Baltica and Siberia. *Palaeogeography, Palaeoclimatology, Palaeoecology* 297: 420-427.
2. Brandt DS, Seitz M, **McCoy VE**, Csonka J, Barringer J, Holmquist E, Kraig S, Morgan R, Myers J, and Paquette L. 2010. A new ichnospecies of *Arthropycus* from the Late Carboniferous (Pennsylvanian) of Michigan, U.S.A. *Ichnos* 17: 12-19.
1. **McCoy VE**, and Brandt DS. 2009. Scorpion taphonomy: Criteria for distinguishing fossil scorpion molts and carcasses. *Journal of Arachnology* 37: 312-320.

Edited books:

Peer-reviewed chapters:

4. **McCoy VE**, Wappler T, Labandeira CC. *In press*. Exceptional fossilization of ecological interactions: Plant defenses during the four major expansions of arthropod herbivory in the fossil record. In: *Fossilization: The Material Nature of Ancient Plants and Animals in the Paleontological Record*. Gee CT, Sander M, and McCoy VE (eds), Johns Hopkins University Press.
3. Barthel HJ, **McCoy VE**, Rust J. *In review*. From ultrastructure to biomolecular composition: taphonomic patterns of tissue preservation in arthropod inclusions in amber. In: *Fossilization: The Material Nature of Ancient Plants and Animals in the Paleontological Record*. Gee CT, Sander M, and McCoy VE (eds), Johns Hopkins University Press.
2. Gee CT, **McCoy VE**. *In review*. Color in living plants and in the paleontological record: Where do the colors in plant fossils come from? In: *Fossilization: The Material Nature of Ancient Plants and Animals in the Paleontological Record*. Gee CT, Sander M, and McCoy VE (eds), Johns Hopkins University Press.

1. Brandt DS, and **McCoy VE**. 2014. Modern analogs for the study of eurypterid paleobiology. In: *Experimental approaches to understanding fossil organisms*. Hembree DI, Platt BF, and Smith JJ (eds), Springer Netherlands, p. 73-88.

As an editor:

1. Gee CT, Sander M, **McCoy VE**. *In review/preparation*. Fossilization: The Material Nature of Ancient Plants and Animals in the Paleontological Record. Johns Hopkins University Press.

In preparation

3. **McCoy VE**, Boom A, Wings O, Wappler T, Labandeira C. Naturally vulcanized rubber: pyrolysis GC/MS of fossilized laticifers from Eocene brown coal (Geiseltal, Germany).
2. Lamsdell JC, **McCoy VE**, Perez-Farrone O, Hopkines M. Fossilized gill tract of *Adelophthalmus*.
1. Barthel HJ, **McCoy VE**, Presslee S, Penkman K, Wang B, Rust J. Fossil amino acids preserved in Cenozoic amber from India and China.

Other publications

2. **McCoy VE**. 2013. Patterns In Palaeontology: Exceptional preservation of fossils in concretions. *Palaeontology Online* 3: Article 7, 1-14.
1. Dolak D, and **McCoy VE**. 2012. The concretion conundrum: Current research at Mazon Creek. *Mid-American Paleontological Society Digest* 35:1-23

AWARDS AND GRANTS

Research grants:

1. Role: Named postdoc (similar to a Co-Investigator in US grants), project 396637283
Funding Source: Deutsch Forschungsgemeinschaft, Germany, project number 396637283 in research unit FOR 2685
Budget: €308,470 for project 396637283
Project title: Research Unit “The limits of the fossil record: Analytical and experimental approaches to fossilization”; project 396637283 “The detection of antiherbivore secondary compounds in the fossil record and their potential role in defense against insects”
Funding period: January 2018-December 2020
2. Role: Researcher (similar to a Co-Investigator in US grants)
Funding Source: Ministerio de Economía, Industria y Competitividad, Spain, CGL2017-84419
Budget: ~ €200,000

Project title: “Evento Cretácico de Resina: Un bioevento global de producción en masa de resina en los albores de los ecosistemas terrestres modernos” (English: “Cretaceous Resin Event: Global bioevent of massive resin production at the initial diversification of modern forest ecosystems”)
Funding period: July 2018-December 2021

Individual Fellowships:

1. Role: Grant writer and awardee
Funding Source: Royal Society Newton International Fellowship, UK, NF150479
Budget: £98,944.50
Project title: “Soft tissue preservation in amber”
Funding period: October 2015-October 2017
Success rate: 1% for those applying directly after the PhD

2. Role: Grant writer and awardee
Funding Source: National Science Foundation, USA, Graduate Research Fellowship
Budget: \$132,000
Project title: “The formation of concretions and their role in fossilization”
Funding period: three years of funding between August 2010 and August 2015
Success rate: 14% of applicants

Other awards and grants:

- 2019 Newton International Fellowship alumni AL\191037 (£121)
- 2018 Newton International Fellowship alumni AL\180023 (£5,075)
- 2018 Yale Peabody Museum George Gaylord Simpson Prize (\$2,500) for a paper on evolution and the fossil record. Awarded for McCoy et al., 2016. The ‘Tully Monster’ is a vertebrate. *Nature*
- 2017 Forbes 30 under 30 Europe in the Science Category: a list of the top 30 scientists under the age of 30 in Europe
- 2016 Argonne National Labs, synchrotron beamtime award (fifty-four shifts of eight hours each): “Biomolecule preservation in amber”
- 2016 Argonne National Labs, synchrotron beamtime award (six shifts of eight hours each): “Tomographic analysis of the morphology of the Tully Monster”
- 2015 Field Museum visiting scholarship (\$1,180): “Morphology and taphonomy of the Tully Monster”
- 2015 Geological Society of America student research grant (\$1,100): “The role of shifting salinity in soft tissue preservation”
- 2015 Yale University Department of Geology and Geophysics Hammer prize for outstanding geology graduate student (\$1,000): “The formation of concretions and their role in fossilization”
- 2014 Geological Society of America student research grant (\$1,500): “Fossilization in Mazon Creek-type concretionary assemblages”

- 2014 Best student poster award, North American Paleontological Convention:
“Distribution of fossiliferous concretions at the Mazon Creek fossil site”
- 2012 Palaeontological Association Sylvester Bradley Award (£825): “Geochemical analyses of Mazon Creek concretions”

INVITED TALKS

- McCoy VE.** 2019 forthcoming. Ecological investigations of eurypterids: vision, respiration, and fluorescence. University of Illinois Chicago, Department Seminar, Chicago, Illinois, USA.
- McCoy VE.** 2019. The use of museum specimens in research: Three case studies. University of Colorado, Boulder, Museum Studies Seminar, Boulder, CO, USA.
- McCoy VE.** 2019. Exceptional fossils in carbonate concretions: Three case studies. Michigan State University Departmental Colloquium, East Lansing, MI, USA.
- McCoy VE.** 2019. Exceptional fossils in carbonate concretions: Why they form and what they can tell us. Denver Museum of Nature and Science Departmental Colloquium, Denver, CO, USA.
- McCoy VE.** 2018. Experimental taphonomy of inclusions in amber. University College Cork Departmental Seminar, Cork, Ireland.
- McCoy VE.** 2017. Soft tissue preservation in amber. University of Leicester Departmental Seminar, Leicester, UK.
- McCoy VE.** 2016. Soft tissue preservation in amber. Friends of the Rotten pre-meeting session, Palaeontological Association annual meeting, Lyons, France.
- McCoy VE.** 2015. Fossilization in concretions. University of Leicester Departmental Seminar, Leicester, UK.
- McCoy VE, and Saupe EE.** 2015. Elucidating the origins of the enigmatic Tully Monster fossil using taphonomy, morphology and synchrotron imaging. Argonne National Lab Seminar, Lemont, IL, USA.
- McCoy VE.** 2014. Concretions as agents of soft tissue preservation: a review. Paleontological Society Short Course, Geological Society of America Annual Meeting, Vancouver, British Columbia.
- McCoy VE.** 2012. The formation of concretions and their role in fossilization. Western Illinois University Departmental Colloquium, Macomb, IL, USA.

PUBLISHED ABSTRACTS AND PRESENTATIONS

*Presented by VEM

- McCoy VE***, Peñalver E, Solórzano Kraemer MM, Delclòs X, Boom A. 2018. The volatile and semi-volatile composition of Cretaceous amber, and comparison to modern resin. Poster presentation, 1st Palaeontological Virtual Congress, Workshop: New insight about ambers: Mesozoic resin producers and productions (hosted by the University of Valencia, Valencia, Spain).
- McCoy VE***, Boom A. 2018. Naturally vulcanized rubber: pyrolysis GC/MS of fossilized laticifers from Eocene brown coal in Germany. Platform presentation, 27th International Workshop on Plant Taphonomy (Darmstadt, Germany).

- McCoy VE***, Tremblay SL, Looy CV, Boom A, Labandeira CC. 2018. Chemical analysis of preserved oil-body cells in Devonian liverworts. Platform presentation, Geological Society of America annual meeting (Indianapolis, IN).
- McCoy VE***, Boom A, Wappler T, and Labandeira C. 2018. Original compounds in copal and amber from the Cretaceous to the Recent: preliminary data for investigating the preservation of defensive chemicals in fossil plants. Platform presentation, 13th Symposium on Mesozoic Terrestrial Ecosystems and Biota (Bonn, Germany).
- McCoy VE***, Penkmann K, Preslee S, Collins M, and Gabbott SE. 2017. Experimental degradation of chicken feather proteins in resin. Platform presentation, Geological Society of America annual meeting (Seattle, WA).
- McCoy VE***, Soriano C, Boom A, and Gabbott SE. 2016. Variable preservation of fruit flies in *Pinus* and *Wollemia* resin. Platform presentation, Palaeontological Association annual meeting (Lyons, France).
- McCoy VE***, Soriano C, Pegoraro M, and Gabbott SE. 2016. The influence of dehydration and gut biota on preservation in amber. Platform presentation, Geological Society of America annual meeting (Denver, CO).
- McCoy VE***. 2016. Evaluating the influence of resin chemistry on preservation in amber. Poster presentation, Fossilsx3 Conference (Edinburgh, UK).
- McCoy VE***. 2015. The role of shifting salinity in soft tissue preservation in concretions. Poster presentation, Palaeontological Association Annual Meeting (Cardiff, Wales).
- McCoy VE***, Lamsdell JC, Poschmann M, Anderson RP, and Briggs DEG. 2015. Eyes and claws reveal the divergent ecological roles of pterygotid eurypterids. Platform presentation, Geological Society of America Annual meeting (Baltimore, MD).
- McCoy VE***, Young RT, and Briggs DEG. 2014. Sediment permeability and exceptional preservation within concretions. Platform presentation, Annual Meeting of the Palaeontological Association (Leeds, UK).
- McCoy VE***, Young RT, and Briggs DEG. 2014. Sediment permeability, decay, and concretion precipitation. Platform presentation, Geological Society of America annual meeting (Vancouver, British Columbia).
- McCoy VE***, Dolak D, and Briggs DEG. 2014. Distribution of fossiliferous concretions at the Mazon Creek fossil site. Poster presentation, North American Paleontological Convention (Gainesville, FL).
- Locatelli ER, Darroch SAF, **McCoy VE**, Anderson RP, and Clark EG. 2014. Experimental taphonomy of foraminifera. Platform presentation, North American Paleontological Convention (Gainesville, FL).
- McCoy VE***, Darroch SAF, Blake R, and Briggs DEG. 2014. Effects of microbial activity on soft tissue phosphatization. Platform presentation, North American Paleontological Convention (Gainesville, FL).
- Anderson RP, **McCoy VE**, McNamara ME, and Briggs DEG. 2013. The mode of life of pterygotid eurypterids: Insights from their visual system. Platform presentation, Annual Meeting of the Palaeontological Association (Zurich, Switzerland).
- McCoy VE**, Young RT, and Briggs DEG. 2013. Laboratory testing of the influence of substrate on decay inhibition and exceptional preservation. Poster presentation, Geological Society of America annual meeting (Denver, CO).

- Anderson RP, **McCoy VE**, McNamara M, and Briggs DEG. 2013. The visual system of the Pterygotid eurypterids: Implications for their mode of life. Poster presentation, Geological Society of America annual meeting (Denver CO).
- McCoy VE***, and Briggs DEG. 2013. Controls on exceptional preservation in concretions. Platform presentation, Geological Society of America annual meeting (Denver CO).
- McCoy, VE***. 2012. Variables contributing to fossilization within concretions. Poster presentation, Palaeontological Association Annual Meeting (Dublin, Ireland).
- McCoy VE***. 2012. Applications of macro CT scanning to the study of the fossils of the Mazon Creek Lagerstätte. Poster presentation, Geological Society of America Annual Meeting (Charlotte, NC).
- McCoy VE***, Strother PK, and Briggs DEG. 2011. A possible tracemaker of *Arthropycus*. Poster presentation, Northeastern/North Central joint Geological Society of America meeting (Pittsburgh, PA).
- McCoy VE**, and Anstey RL. 2009. Biogeographic associations of Silurian bryozoan genera in North America, Baltica and Siberia. Poster presentation, North American Paleontological Convention (Cincinnati, OH).
- Brandt DS, Csonka J and **McCoy VE**. 2008. In search of a modern analog for *Arthropycus* ichnogenus. Platform presentation, Geological Society of America Annual Meeting (Houston, TX).
- Brandt DS, **McCoy VE**, Barringer J, Csonka J, Holmquist E, Kraig S, Morgan R, Myers J, Paquette L, and Seitz M. 2008. A new ichnospecies of *Arthropycus* from the Late Carboniferous (Pennsylvanian) of Michigan. Platform presentation, North Central Geological Society of America Meeting (Evansville, IN).
- Brandt DS, and **McCoy VE**. 2007. Scorpions as eurypterid analogues. Platform presentation, North Central/South Central joint Geological Society of America Meeting (Lawrence, KS).
- McCoy VE***, and Brandt DS. 2007. Scorpion taphonomy: Implications for Distinguishing fossil scorpion molts and carcasses. Poster presentation, North Central/South Central joint Geological Society of America Meeting (Lawrence, KS).

TEACHING EXPERIENCE

University of Wisconsin, Milwaukee

2019 Introduction to Paleontology

University of Bonn*

2019 Plant-Animal Interactions in Deep Time: I was responsible for the topic 'Insects.' This involves organizing, preparing and presenting 10 hours of lectures and 6 hours of labs.

2019 Scientific Communications: I was responsible for the topic 'Hypotheses.' This involves organizing, preparing, and presenting 3 hours of lectures and

a 1 hour lab. I was also responsible for organizing and leading the language labs (three sessions of one hour each) in which students practice scientific discussions in English

* At the University of Bonn, each course is taught by 2-6 professors/lecturers, each of whom organize, develop, and teach one or more topics; each topic includes lectures and labs.

STUDENT MENTORING

- 2016-2018 Arjan Mann, Carleton University; PhD dissertation title: ‘A taxonomic revision of the Carboniferous Pennsylvanian Mazon Creek, Tetrapoda, and a reassessment of Early Tetrapod communities’
- 2012-2014 Robert Young, Yale University; senior thesis title: “Laboratory testing of a substrate mechanism for decay inhibition and exceptional preservation;” also resulted in two published papers (McCoy, Young, and Briggs 2015a, 2015b)
- 2012-2013 Iwona Chalus, Yale University, through the Women in Science at Yale (WISAY) program

FIELDWORK

- 2012 Illinois, USA; Carboniferous; Mazon Creek fossil site in the Francis Creek Shale
- 2011 Illinois, USA; Carboniferous; Mazon Creek fossil site in the Francis Creek Shale
- 2011 Pennsylvania, USA; Silurian; Tuscarora sandstone

RESEARCH EXPERIENCE

Taphonomy lab: designing and setting up decay experiments; measuring decay through morphological change, weight change, and infrared gas analysis (IRGA)

Microbiology: culturing pure bacterial strains on agar plates; measuring bacterial growth based on optical density; isolating DNA for sequencing; UV dissolution of tissue samples

Organic chemistry: pyrolysis gas-chromatography (PY-GC-MS), sample analysis and troubleshooting; solid-phase microextraction gas chromatography (SPME GC-MS), sample analysis

Geochemistry lab: gasbench analysis of carbon and oxygen isotopes; powder x-ray diffraction (XRD); measuring dissolved phosphate concentrations in seawater

Geochemistry clean lab: leaching carbonate sample; preparing samples for analysis using ion columns; preparing carbonate standards for trace elements analysis; carbonate trace elements analysis using a multi-collector inductively coupled plasma mass

spectrometer (MC-ICP-MS); strontium and iron isotope analysis using a single collector inductively coupled plasma mass spectrometer (SC-ICP-MS)

Biology clean lab: removing inclusions from amber for ancient proteins analysis

Imaging: scanning electron microscope, both imaging and energy dispersive spectroscopy (EDS); CT scanning; synchrotron tomography and synchrotron XRF (at Argonne National Labs)

Computer: 3D reconstruction of CT scans using VGStudioMax; statistical analyses using the program R

PROFESSIONAL COURSES AND WORKSHOPS

- 2019 Optical microscopy, focusing on siliceous fossils. Workshop taught by Moritz Liesegang at the University of Bonn.
- 2018 Bone Histology. Short course taught by Martin Sander at the University of Bonn
- 2016 Friends of the Rotten. Taphonomy short course at the Palaeontological Association annual meeting (Lyon, France)
- 2016 Royal Society Media Skills training course
- 2016 Virtual Paleontology. Paleontological society short course at the Geological Society of America annual meeting (Denver, CO)
- 2014 Reading and writing of the fossil record: preservational pathways to exceptional fossilization. Paleontological society short course at the Geological Society of America annual meeting (Vancouver, Canada).

SOCIETY MEMBERSHIPS

Geological Society of America; Paleontological Society (US); Palaeontological Association (UK).

PROFESSIONAL AND COMMUNITY SERVICE AND OUTREACH

- 2018 On the scientific committee for 1st Palaeontological Virtual Congress
- 2018 Provided English editing for submitted abstracts and text in the meeting program for the 13th Symposium on Mesozoic Terrestrial Ecosystems and Biota
- 2018 Reviewer for *Geobiology*
- 2018 Reviewer for *Geosciences*
- 2018 Organized and led monthly seminars for the DFG-funded fossilization research group
- 2018 Reviewer for *Geology*
- 2017 Led a session at the Geological Society Annual Meeting (Seattle, WA): “Paleontology, Paleoecology/Paleobotany,” with Cindy Looy
- 2017 Presented a talk to the Geology Section of the Leicester Literary and Philosophical society

- 2017 Presented a talk at the University of Leicester to students in the LIYSF program, a two-week residential program organized by the Imperial College London for young scientists
- 2017 Participated in a ‘Speak up for Climate’ stall during the Climate Change week of Action
- 2017 Reviewer for *Palaeontology*
- 2017 Reviewer for *Scientific Reports*
- 2017 Presented at Nottingham Scibar
- 2016 Reviewer for *Atlantic Geology*
- 2016 Skype and live email exchanges about my research and about being a paleontologist with 8th grade students at the Sugar Grove Academy, in the Houston Independent School District in Houston, Texas, USA.
- 2016 Reviewer for *Geology*
- 2015 Led a session at the Geological Society Annual Meeting (Baltimore, MD): “Paleontology: Building the Fossil Record: Taphonomic and Paleoecological Controls on Fossilization,” with Emma Locatelli
- 2015 Reviewer for *Geology*
- 2015 Educational videos at Argonne National Labs:
https://www.youtube.com/watch?v=nB1EsCM6-GI&index=2&list=PL0hRJO_fHhJc-cI8ooJXxFu-pWqOSrnfS
- 2014 Reviewer for *Palaeogeography, Palaeoclimatology, Palaeoecology*
- 2014 Led Invertebrate Paleontology lab meetings
- 2014 Yale Peabody Museum Dino Days, Meet the Scientist program, volunteer
- 2013 Led Invertebrate Paleontology lab meetings
- 2013 Presented to the fossil club of the St Paul school district, New Haven
- 2012 Led Invertebrate Paleontology lab meetings
- 2012 Yale Peabody Museum Dino Days, Meet the Scientist program, volunteer
- 2012 Paleo Knowledge Bowl, Yale University, question writer and volunteer
- 2011 Yale Peabody Museum Dino Days, Meet the Scientist program, volunteer
- 2011 Paleo Knowledge Bowl, Yale University, question writer

PRESS COVERAGE

- 2017 For McCoy *et al.* 2016 in *Nature*: Selected as one of Discover Magazine’s top 100 science stories in 2016; listed as number 51
- 2016 For McCoy *et al.* 2016 in *Nature*: BBC; National Geographic; The Times; the New York Times; The Atlantic; The Washington Post; Chicago Tribune; Pittsburgh Post-Gazette; Science News; Scientific American; ABC Melbourne Breakfast Radio; Gizmodo; Palaeocast podcast; the Independent; Discovery Channel News; Smithsonian; USA Today; Reuters; Forbes; the Weather Channel; CBS news; numerous other news sources, blogs, and foreign language news sources.
- 2014 For Anderson *et al.* 2014 in *Biology Letters*: The Scientist Magazine; Nature World News; Wired; Science Daily.

NOTABLE ALTMETRIC SCORES

2016 For McCoy *et al.* 2016 in *Nature* (as of November 2nd, 2018): Altmetrics score 1953; in the 99 percentile (ranked 30th) of the 284,848 tracked articles of a similar age in all journals; in the 99 percentile (ranked 5th) of the 1,044 tracked articles of a similar age in *Nature*