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Gwen S. Antell

Education

 $\textbf{DPhil}, \ \textit{University of Oxford}, \ \mathsf{UK}.$

2017-Present

Department of Earth Sciences

B.S. Science, Yale University, USA, magna cum laude.2012–2016Ecology & Evolutionary Biology and Geology & Geophysics

DPhil thesis

Title: Macroecological consequences of biotic competition and abiotic resource limitation in marine invertebrate communities

Supervisors: Erin E. Saupe (Earth Sciences) & Tim Coulson (Zoology)

Research interests::

- o Species' geographic distribution and niche dynamics
- o Invertebrate palaeontology and palaeo-ecology
- o Biodiversity across spatial, temporal, and taxonomic scales

Employment

Graduate instructor, *Earth Sciences*, Oxford. **2017–Present** Labs, tutorials, and field courses about evolution and past environments.

Geoscientists-in-the-Parks Intern, US National Park **2016–2017** Service, Geologic Resources Division, Florissant, Colorado.

Collections Assistant, *Yale Peabody Museum of Natural* **2013–2016** *History*, New Haven, Connecticut.

Leadership

- St John's College, Middle Common Room Committee, President 2018-2019, Diversity officer 2017–2018
- Women's Leadership Forum discussion leader, St John's College, February–March 2018
- Representative for Earth Sciences postgraduates, Divisional Joint Consultative Committee, 2018–2019
- Representative for postgraduate women, Workplace and Equality Committee, Dept. of Earth Sciences, U. of Oxford, 2017–2019
- o Yale Ecology and Evo. Bio. Group, 2013-2016, President 2015-2016
- o Connecticut Entomological Society, 2013–2016, Secretary 2015–2016

Publications

- 1. Antell, G. S., Kiessling, W., Aberhan, M. & Saupe, E. E. Ecological release is undetectable in the sea after global catastrophes throughout Earth history. Nature Communications (submitted).
- 2. Darroch, S. A., Casey, M., Antell, G. S., Sweeney, A. & Saupe, E. E. High preservation potential of range size-extinction risk signals in deep time. American Naturalist (in review).
- 3. Antell, G. S. Digitization reveals and remediates challenges to research on dispersed museum collections from Florissant fossil beds, Colorado. Museums at the Forefront of the History and Philosophy of Geology: History Made, History in the Making. Geological Society of America Special Volume **535**, 301–309 (2018).
- 4. Antell, G. S. & Kathirithamby, J. The First Twisted-wing Parasitoids (Insecta: Strepsiptera) from the Early Eocene Green River Formation of Colorado. Bulletin of the Peabody Museum of Natural History **57**, 165–174 (2016).

Oral presentations

- 1. Antell, G. S., Kiessling, W., Aberhan, M. & Saupe, E. E. No patterns of ecological release in brachiopod and bivalve distributions over the Phanerozoic in North American Paleontological Convention, *1st place student talk* (2019).
- 2. Antell, G. S. Game of Biomes: The contest for world domination after biotic catastrophe in Oxford Geology Group, Paleontology Symposium, *invited student speaker* (2019).
- 3. Antell, G. S., Kiessling, W., Aberhan, M. & Saupe, E. E. Geographic distributions of benthic invertebrate species are diversity-dependent across the Phanerozoic in Crossing the Palaeontological-Ecological Gap, *commended student talk* (2018).
- 4. Antell, G. S., Kiessling, W., Aberhan, M. & Saupe, E. E. Geographic distributions of benthic invertebrate species are diversity-dependent across the Phanerozoic in International Palaeontological Congress (2018).
- 5. Antell, G. S. Exoskeletons in the closet: new fossil insect species from the drawers of the Yale Peabody Museum in Yale Peabody Museum 150th Anniversary Symposium, *one of 10 invited alumni speakers* (2016).
- 6. Antell, G. S. & Meyer, H. W. Fossils from the frontier: Decades of museum influence on the paleontology of the Florissant fossil beds, Colorado in Geological Society of America Annual Meeting (2016).
- 7. Antell, G. S. & Mertes, K. J. Niche partitioning in East African Hornbills along behavioral, dietary, movement, and habitat axes in Ecological Society of America (2016).
- 8. Antell, G. S. & Mertes, K. J. A coexistence story: East African Hornbill niche partitioning in Pierson College Mellon Forum (2016).
- 9. Antell, G. S. An old twist on a new problem: Inferring the paleodistribution of the parasite Caenocholax (Strepsiptera: Myrmecolacidae) from a new fossil discovery in Geological Society of America (2015).
- 10. Antell, G. S. Stone flies and rock crawlers: Fossil insects from the Eocene in Connecticut Entomological Society, *1st place student speed talk* (2015).

Awards			
Scholarships	Clarendon Fund Scholarship		2017–Present
	NSF Graduate Research Fellowship Program (declined)		2017
	Jerry (1953) and Jackie Inskeep Scholarship Fund 2013-2016		
	Summer Environmental Fellowship (\$1,300)	2014
	US National Merit Scholarship (\$2,5	00)	2012
Grants	Burdett-Coutts Grant, Earth Science	es, U. of Oxford (£1,650) 2019
	Postgraduate Special Grant, St John's College (£1,250) 2018		
	Travel Grant, Palaeontological Association (£300) 2018		
	E. Myer Grant, Harvard Museum of Comparative Zoology (\$1,100) 2016		
	Pierson College Richter Fellowship		2015
	Yale Science Center Int'l Fellowship (\$3,870; \$4,300) 2014, 2015		
	Yale Freshmen Summer STEM Rese	arch Fellowship (\$4,300)	2013
Awards	1st place student talk, N. Am. Palaeo. Convention 2019		
	D. E. Chantler Award: 'strength of character', Yale U. 2016		
	W. R. Belknap Prize: excellence in a biology thesis, Yale U. 2016		
	1st place student speed talk, Connecticut Entomological Society 2015		
Skills			
Software	o ArcGIS	o R	
Sortware	o Photoshop	o LaTeX	
	o Illustrator	Microsoft Office	
		o wicrosoft office	
Statistics	o Species distribution models		
	o Generalised, mixed-effects, & phylogenetic regression		
	o Bayesian inference, including RevBayes		
	 Non-parametric and bootstrapping methods 		
Field techniques	o GPS navigation	o Cartography	
	o Quadrats & transects	Photogrammetry	
	o Bird banding	o Plant, insect, & foss	il collection
Museum curation	o Specimen cataloguing, georeferencing, and imaging		
	o Plaster casts and moulds of fossils		
	o Insect pinning and identification		
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Field work |

Postgraduate instructor: Earth Sciences undergraduate field course. Isle of Arran, UK. 1 week, 2019

Postgraduate instructor: Earth Sciences undergraduate field course. Dorset, UK. 1 week, 2018, 2019

Stratigraphic paleobiology: Paleo. Society postgraduate field course. Bitterroot Mountains, MT, USA. 2 weeks, 2017

Global tectonics: Yale U. course. Sicily, Italy. 2 weeks, 2016

Wildlife research: Lale'enok Resource Centre, Kenya. 2 months, 2015

Sedimentary geology: Yale U. course. Barbados. 2 weeks, 2015 Wildlife research: Mpala Research Centre, Kenya. 3 months, 2014

Training and workshops

Wilderness First Responder: 80-hour medical certificate in emergency response, maintained valid June 2017-present

University teaching: University of Oxford, 20 Feb 2019

Science communication for children: Oxford University Museum of Natural History, 25 Feb 2019

STEM Ambassador training: University of Oxford, 23 Jan 2019

RevBayes Bayesian phylogenetic inference: University of Bristol, 1-3 May 2018

Mixed-effects models and smart modelling techniques in R: University of Oxford, 17-20 Apr 2018

outreach

- Access and o Super Science Saturday activity leader, Oxford University Museum of Natural History, 9 March 2019. 3600 attendees
 - o UNIQ summer school instructor, Oxford Earth Sciences; 2018, 2019
 - o International Association of Geoscience Diversity, member 2018–Present
 - o Oxford Disability Law and Policy Conference, 24–25 February 2018
 - o Oxford ApplyED (Equality and Diversity) conference, 14 November 2017

Advocacy |

Edinburgh Marathon: £750 raised for the Juvenile Diabetes Research Foundation. Sub 4-hour finishing time. 25 May 2019

March For Science: Support of the American Geophysical Union and Paleontological Society. Activity leader for the Museum of Natural History, UC Boulder. Denver 2017, London 2018

Tough Mudder: \$1,200 raised for the American Diabetes Association. 10-mile obstacle course and mud run. Sacramento, CA, USA. 2017