

# ROWAN C. MARTINDALE

## *CURRICULUM VITAE*

ASSISTANT PROFESSOR (INVERTEBRATE PALEONTOLOGY)  
AT THE UNIVERSITY OF TEXAS AT AUSTIN

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### RESEARCH INTERESTS

The overarching theme of my work is the connection between Earth and life through time, more precisely, understanding ancient (Mesozoic and Cenozoic) ocean ecosystems and the evolutionary and environmental events that shaped them. My research is highly interdisciplinary, (paleontology, sedimentology, biology, geochemistry, and oceanography) and focuses on: extinctions and carbon cycle perturbation events (e.g., Oceanic Anoxic Events, acidification events); marine (paleo)ecology and reef systems; the evolution of reef builders (e.g., coral photosymbiosis); and exceptionally preserved fossil deposits (Lagerstätten).

### ACADEMIC APPOINTMENTS

<b>Assistant Professor, University of Texas at Austin</b>	<b>August 2014 to Present</b>
<b>Postdoctoral Researcher, Harvard University</b>	<b>August 2012 to July 2014</b>
Department of Organismic and Evolutionary Biology; Mentor: Dr. Andrew H. Knoll.	

### EDUCATION

<b>Doctorate, University of Southern California</b>	<b>2007 to 2012</b>
<i>Dissertation:</i> "Paleoecology of Upper Triassic reef ecosystems and their demise at the Triassic-Jurassic extinction, a potential ocean acidification event".	
<i>Advisor:</i> Dr. David J. Bottjer, degree conferred August 7 <sup>th</sup> 2012.	
<b>Bachelor of Science Honors Degree, Queen's University</b>	<b>2003 to 2007</b>
Geology major with a general concentration in Biology (Geological Sciences Medal Winner).	

### PEER-REVIEWED PUBLICATIONS [H-INDEX = 8 (09/2017)]

*NOTE:* \* = UT GRADUATE STUDENT; § = UT POSTDOC, ‡ = UT UNDERGRADUATE STUDENT

20. Marroquín, S. M.\*, **Martindale, R.C.**, Fuchs, D. *In Press*. New Records of the Late Pliensbachian–Early Toarcian (Early Jurassic) Gladius-Bearing Coleoid Cephalopods from the Ya Ha Tinda Lagerstätte, Canada. *In Press at Papers in Palaeontology*.
19. **Martindale, R.C.**, Foster W.J.§, Velledits F., *In Press* The survival, recovery, and diversification of metazoan reef ecosystems following the end-Permian mass extinction event. *In Press at Palaeogeography, Palaeoclimatology, Palaeoecology*. doi: 10.1016/j.palaeo.2017.08.014.
18. Tornabene, C.\*, **Martindale, R.C.**, Wang, X.T., Schaller, M.F., 2017. Detecting Photosymbiosis in Fossil Scleractinian Corals. *Nature - Scientific Reports*. 7 (9465).

17. Weiss, A.M.\* and **Martindale, R.C.**, 2017. Crustose coralline algae increase framework and diversity on ancient coral reefs. *PLoS ONE*. 12(8): e0181637.
16. **Martindale, R.C.** and Aberhan, M. 2017. Response of macrobenthic communities to the Toarcian Oceanic Anoxic Event in northeastern Panthalassa (Ya Ha Tinda, Alberta, Canada). *Palaeogeography, Palaeoclimatology, Palaeoecology*. 478, 103–120.
15. Maxwell, E.E., and **Martindale, R.C.** 2017. New *Saurorhynchus* (Actinopterygii: Saurichthyidae) material from the Early Jurassic of Alberta, Canada. *Canadian Journal of Earth Sciences*. 54(7), 714-719.
14. **Martindale, R.C.**, Them, T.R. II, Gill, B.C., Marroquín, S.M.\*, Knoll, A.H., 2017. A new Early Jurassic fossil Lagerstätte from Ya Ha Tinda, Canada (~183 Ma). *Geology*, 45, 255-258.
13. Them, T.R., Gill, B.C., Caruthers, A.H., Gröcke, D.R., Tulskey, E.T.T., **Martindale, R.C.**, Poulton, T.P., Smith, P.L., 2017. High-resolution carbon isotope records of the Toarcian Oceanic Anoxic Event (Early Jurassic) from North America and implications for the global drivers of the Toarcian carbon cycle. *Earth and Planetary Science Letters*, 459, 118–126.
12. **Martindale R.C.**, Strauss, J.V., Sperling, E.A., Johnson, J.E., Van Kranendonk, M.J., Flannery, D., French, K., Lepot, K., Mazumder, R., Rice, M.S., Schrag, D.P., Summons, R., Walter, M., Abelson, J., and Knoll, A.H. 2015. Sedimentology, chemostratigraphy, and stromatolites of lower Paleoproterozoic carbonates, Turee Creek Group, Western Australia. *Precambrian Research* 266, 194–211.
11. Corsetti, F.A. Ritterbush, K.A., Bottjer, D.J., Greene, S.E., Ibarra, Y., Yager, J.A., West, A.J., Berelson, W.M., Rosas, S., Becker, T.W., Levine, N.M., Loyd, S.J., **Martindale R.C.**, Petryshyn, V.A., Carroll, N.R., Petsios, E., Piazza, O., Pietsch, C., Stellmann, J.L., Thompson, J.R., Washington, K.A., and Wilmeth, D.T. 2015. Investigating the Paleoeological Consequences of Supercontinent Breakup: Sponges Clean Up in the Early Jurassic. *The Sedimentary Record*. 13 (2), 4–10.
10. **Martindale R.C.**, Corsetti, F.A., James, N.P., and Bottjer, D.J., 2015. Paleogeographic trends in Late Triassic reef ecology from northeastern Panthalassa. *Earth Science Reviews*. 142, 18–37.
9. **Martindale R.C.**, Krystyn, L., Corsetti, F.A., and Bottjer, D.J., 2013. From fore reef to lagoon: Evolution of the Upper Triassic Dachstein carbonate platform on the Tennengebirge (Salzburg, Austria). *Palaios*, 28, 755–770. \*2013 Outstanding Paper in *Palaios*
8. **Martindale R.C.**, Krystyn, L., Bottjer, D.J., Corsetti, F.A., Senowbari-Daryan, B., and Martini, R. 2013. Depth transect of an Upper Triassic (Rhaetian) reef from Gosau, Austria: Microfacies and community ecology. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 376, 1–21.
7. **Martindale R.C.**, Berelson, W.M., Corsetti, F.A., Bottjer, D.J., and West, A.J. 2012. Constraining carbonate chemistry at a potential ocean acidification event (the Triassic-Jurassic boundary) using the presence of corals and coral reefs in the fossil record. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 350–352, 114–123.
6. **Martindale, R.C.**, Corsetti, F.A., Bottjer, D.J., and Senowbari-Daryan, B. 2012. Microbialite Fabrics and Diminutive Skeletal Bioconstructors in Lower Norian Summit Point Reefs, Oregon, U.S.A. *Palaios*, 27, 489–508.

5. Greene, S.E.\*, **Martindale, R.C.\***, Ritterbush, K.A., Bottjer, D.J., Corsetti, F.A., and Berelson, W.M. 2012. Recognizing ocean acidification in deep time: an evaluation of the evidence for acidification across the Triassic-Jurassic boundary. *Earth Science Reviews*, 113, 72–93. *\*Both authors contributed equally to the paper*
4. Hönisch, B., Ridgwell, A., Schmidt, D.N., Thomas, E. Gibbs, S.J., Sluijs, A., Zeebe, R., Kump, L., **Martindale, R.C.**, Greene, S.E., Kiessling, W., Ries, J., Zachos, J.C., Royer, D.L., Barker, S., Marchitto, T.M., Moyer, R., Pelejero, C., Ziveri, P., Foster, G.L., and Williams, B., 2012. The Geological Record of Ocean Acidification. *Science*, 335, 1058–1063.
3. **Martindale, R.C.**, Bottjer, D.J., and Corsetti, F.A., 2012. Platy Coral Patch Reefs from Eastern Panthalassa (Nevada, USA): Unique reef construction in the Late Triassic. *Palaeogeography, Palaeoclimatology, Palaeoecology* 313–314. 41–58.
2. **Martindale, R.C.**, Zonneveld, J.P., and Bottjer, D.J. 2010. Framework of Upper Triassic (Carnian) Patch Reefs from Williston Lake, British Columbia, Canada. *Palaeogeography, Palaeoclimatology, Palaeoecology* 297. 609–620.
1. James, N.P., **Martindale, R.C.**, Malcolm, I., Bone, Y., and J. Marshall. 2008. Surficial sediments on the continental shelf of Tasmania, Australia. *Sedimentary Geology*, 211, 33–52.

#### **OTHER PUBLICATIONS (BOOK SECTIONS AND FIELD GUIDES)**

2. Zonneveld, J.P., Gingras, M.K., Beatty, T.W., Bottjer, D.J., Chaplin, J.R., Greene, S.E., Martindale R.C., Mata, S.A., McHugh, L.P., Pemberton, S.G., and Schoengut, J.A. 2012. Chapter 26: Mixed Siliciclastic/Carbonate Systems. In: *Trace Fossils as Indicators of Sedimentary Environments*. Knaust, D. and Bromley, R.G. (eds.). *Developments in Sedimentology*, Vol. 64. Elsevier. 924 p.
1. Richoz, S., Krystyn, L., von Hillebrandt, A., and Martindale R.C., 2012. End-Triassic crisis events recorded in platform and basin of the Austrian Alps. The Triassic/Jurassic and Norian/Rhaetian GSSPs. *Field Trip Guide for the 29th IAS Meeting of Sedimentology in Schladming/Austria*. *Journal of Alpine Geology* 55. S.321–374.

#### **RESEARCH GRANTS AS PRIMARY INVESTIGATOR AT UT AUSTIN**

- NSF EAR Assessing the Paleocology and Taphonomy of the New Early Jurassic Ya Ha Tinda Lagerstätte (Canada) and the Significance of the Toarcian Ocean Anoxic Event. PI: Rowan Martindale, Total Award: \$335,580 (06/2017 to 05/2020).
- NSF Digitization TCN: Collaborative Research: The Cretaceous World: Digitizing Fossils to Reconstruct Evolving Ecosystems in the Western Interior Seaway. PIs: Ann Molineux, Rowan Martindale, Matthew Brown. Total Award amount: \$2,100,000; UT Portion of Award: \$240,528 (07/2016 to 06/2019).
- NSF CSBR: Natural History: Critical infrastructure upgrades and expanded digital access to Non-vertebrate Paleontology Collections at the University of Texas at Austin. PIs: Ann Molineux, Rowan Martindale. Total Award: \$495,880 (08/2015 to 07/2018).
- University of Texas at Austin, College of Natural Sciences Catalyst Grant. PIs: Rowan Martindale (Geological Sciences) and Mikhail Matz (Integrative Biology). Total Award: \$50,000 (11/2015 to 11/2016).
- University of Texas at Austin, Jackson School of Geosciences, Surface and Hydrologic Processes Research Seed Grant (\$16,829 Awarded 2015)

- University of Texas at Austin, Jackson School of Geosciences, Climate, Carbon, and Geobiology Research Seed Grant (\$15,555 Awarded 2015)
- University of Texas at Austin, Jackson School of Geosciences, Climate, Carbon, and Geobiology Research Seed Grant (\$15,000 Awarded 2014)

### **SCHOLARSHIPS AND AWARDS (2012 – PRESENT)**

- *2017 Carolyn G. and G. Moses Knebel Teaching Award*: Award for teaching excellence in an introductory undergraduate course in the Department of Geological Sciences (UT Austin).
- *2017 UT Austin Mentoring fellowship*: recruiting award for an exceptional under represented minority graduate student
- *2013 Outstanding Paper in Palaios award from SEPM*: Martindale et al. 2013 doi: 10.2110/paleo.2013.016
- *2013 Agouron Post doctoral Research Fellowship* (alternate fellow)
- *2012 Humboldt Post doctoral Research Fellowship* (declined)
- *2012 Scripps Institution of Oceanography Postdoctoral Scholar* (declined)
- *Canadian Society of Petroleum Geologists Graduate Thesis Award*: The best Ph.D. thesis from a Canadian university or dealing with a Canadian sedimentary/petroleum geology topic (Honorable Mention, 2012).
- *USC Ph.D. Achievement Award*: Awarded to five USC graduates for exceptional achievements as a doctoral student, including significant publications, job offers, major awards, and other markers of excellence (2012).

### **TEACHING EXPERIENCE**

#### **Professor, University of Texas at Austin Department of Geological Sciences**

Evolution of Reef Ecosystems (GEO 391, graduate-level course) Spring 2015, Fall 2016

Life Through Time (GEO 405, lower-level undergraduate course) Spring 2016, 2017

\* *2017 Knebel Teaching Award (introductory undergraduate course) for GEOL 405.*

Transitions in the History of Life (GEO 371T & 391, upper-level undergraduate and graduate-level course) Fall 2015

The Interactive Ocean: History, Science, and People on the Blue Planet (UGS 302, undergraduate signature course) Fall 2015

Exceptional Fossilization (GEO 391, graduate-level course) Spring 2015

#### **Teaching Assistant, University of Southern California Earth Sciences Department**

Oceanography (general education course) Fall 2010 \*Best Teaching Assistant Award

Surficial Processes and Stratigraphic Systems (third-year course) Spring 2010 \*Best Teaching Assistant Award

Climate Change (general education course) Spring 2008

#### **Teaching Assistant, Queen's University Geology Department**

Engineering Geology (first-year engineering course) Fall 2005 & 2006

Terrain Evaluation (third-year course) Spring 2006 & 2007

## **STUDENTS AND POSTDOCTORAL RESEARCHERS MENTORED**

### *Postdoctoral Researchers*

William J. Foster, JSG Distinguished Postdoctoral Fellow (2015-2017)

### *Graduate Students (Primary Advisor)*

Anna M. Weiss (Ph.D., expected 2019)  
Hannah M. Brame (Ph.D., expected 2021)  
Nicholas P. Ettinger (MSc, completed Spring 2017)  
Kelly E. Hattori (MSc, completed Spring 2017)  
Selva M. Marroquín (MSc, completed Spring 2016)  
Chiara Tornabene (MSc, completed Spring 2016)

### *Graduate Students (Committee Member)*

Lauren English (Ph.D., advisor: J. Clarke): Dissertation committee 2017-Present  
Allison Lawman (Ph.D., advisors: T. Quinn & J. Partin): Dissertation committee 2017-Present  
James Proffitt (Ph.D., advisor: J. Clarke): Dissertation committee 2015-Present  
William Gelnaw (Ph.D., advisor: C. Bell): Dissertation committee 2015-Present  
Mahmoud Al-Nazghah (Ph.D., advisor: C. Kerans): Dissertation committee 2015-Present  
Benjamin Smith (Ph.D., advisor: C. Kerans): Dissertation committee 2015-Present  
Simon Scarpetta (Ph.D., advisor: C. Bell): Dissertation committee 2016-Present  
Natasha Piatrunia (Ph.D., advisor: T. Shanahan): Qualifying exam committee 2016-Present  
Charles Withnell (Ph.D., advisor: C. Bell): Qualifying exam committee 2016-Present  
Joshua Lively (Ph.D., advisor: C. Bell): Qualifying exam committee 2015  
Rachel Bernard (Ph.D., advisor: W. Behr): Qualifying exam committee 2015  
Sarah Barfield (Ph.D. advisor: M. Matz): Qualifying exam committee 2015  
Mohammed Fallatah (MSc, advisor: C. Kerans): Thesis committee 2016-2017  
Benjamin Breeden (MSc, advisor: T. Rowe): Thesis committee 2014-2015

### *Undergraduate Students*

Maria Reistroffer (BSc, expected Spring 2017): Undergraduate thesis advisor  
Walker Wiese (BSc, expected Spring 2017): Undergraduate thesis advisor  
Sean Kacur (BSc, expected Spring 2019): Undergraduate thesis advisor

## **PROFESSIONAL SERVICE (LAST 5 YEARS)**

### **GSA division executive committee**

**October 2014 to Present**

Executive committee member [Vice President (2016-Present), Secretary (2014-2016)], GSA Geobiology and Geomicrobiology division.

### **STEPPE Consortium Board of Directors**

**January 2016 to Present**

Four-year advisory term and service on a committee.

### **Science Advisor for the Paleontological Society of Austin**

**November 2015 to Present**

Advise the PSA about scholarships and provide content for outreach events and fossil shows.

### **Journal Article Reviewer**

**Ongoing**

Journals include: Geology; Science; Palaeogeography, Palaeoclimatology, Palaeoecology; Sedimentology, Proceedings of the Royal Society B.

### **DGS SSL annual performance review committee**

**Spring/Summer 2017**

Part of the annual performance review committee (chaired by Dr. David Mohrig) for the Department of Geological Sciences Earth Surface, Subsurface, and Life Program.

- AGU Outstanding Student Presentation Judge and Session Liason** **2015, 2016, 2017**  
 Judged posters and talks for several disciplines at the 2015, 2016, and 2017 Fall AGU meeting; was the session liason at the Fall 2015 meeting.
- GSA Annual Meeting Topical Session Chair** **Fall 2013, 2014, 2017**  
 Organized and chaired topical sessions at the 2013, 2014, and 2017 Geological Society of America Annual Meetings.
- Examiner - Folk and McBride Petrology Contest** **Spring 2017**  
 Organized questions and graded a portion of the Folk and McBride Petrology Contest (graduate and undergraduate).
- GSC Loose Ends Committee** **Fall 2016 to Spring 2017**  
 Member of the JSG Graduate Studies Committee “Loose-ends” ad-hoc committee.
- Faculty Host for Visiting Speakers** **Fall 2014 to Spring 2017**  
 Organized schedules and coordinated the visits of multiple visiting speakers: Dr. Jean Hsieh (Fall 2015), Dr. Rachel Wood (Spring 2016), Dr. Andrew Knoll (Spring 2016), Dr. Jocelyn Sessa (Spring 2017), and Dr. Jonathan Payne (Spring 2017). Also met with, dined with, and attended the talks of multiple visitors to UT Austin.
- Coordinator for prospective student visits** **Spring 2014 to 2017**  
 Organized schedules and coordinated the visits of multiple paleontology prospective students during the prospective student weekend at UT Austin.
- AAPG Exceptional Presentation Judge** **April 2017**  
 Judged posters and talks at the 2017 AAPG Annual Convention and Exhibition.
- GSA Student Presentation Judge** **September 2016**  
 Judged posters and talks for the GSA Geobiology and Geomicrobiology division at the 2016 Annual GSA Meeting.
- New Graduate Student Field Trip Leader** **August 2014 & 2016**  
 Participated in the Jackson School’s new graduate student field trip to Austin-area geological sites.
- NSF Panelist** **Spring 2016**  
 Panelist for the NSF EAR Sedimentary Geology and Paleobiology division.
- IAS Annual Meeting Session Chair** **Fall 2015 to Spring 2016**  
 Organized a session at the International Association of Sedimentologists Annual Meeting.
- Jackson School Student Poster Symposium Judge** **February 2015 & 2016**  
 Judged various sections of the Jackson School of Geosciences student poster symposium.
- DGS Hiring Committee** **Spring to Fall 2015**  
 The early-career member of the chair hiring committee (2015) and the joint UTIG-DGS hire (2015-2016) for the JSG Department of Geosciences.
- AGU Annual Fall Meeting Session Chair** **Fall 2015**  
 Organized and chaired a session at the 2015 American Geophysical Union Annual Meeting.
- Caribbean Coral Reefs at Risk Session Chair** **September 2015**  
 Chaired a session at the 2015 Caribbean Coral Reefs at Risk Symposium at UT Austin organized by Carlos Ramos-Scharron (Department of Geography).

## **VOLUNTEER ACTIVITIES AND PUBLIC OUTREACH**

### **Ya Ha Tinda Lagerstätte Museum Displays and Outreach** **Fall 2016 to Present**

Organize public outreach displays about the newly discovered Ya Ha Tinda Lagerstätte. Deliverables have included the design of a fossil display case at UT Austin and another at Ya Ha Tinda Ranch, contributions to the fossil display case at the Royal Tyrrell Museum of Palaeontology (unveiled in Fall 2017), and the design of a pamphlet about the fossil deposit for the 150<sup>th</sup> anniversary of the Ya Ha Tinda Ranch.

### **Science Advisor for EarthDate** **April 2017 to Present**

Advise the EarthDate Content Producer about Paleontological research for their radio show.

### **Science Advisor for the Paleontological Society of Austin** **November 2015 to Present**

Advise the PSA about scholarships and provide content for outreach events and fossil shows.

### **Webmaster for GSA GBGM division** **2014 to Present**

Designed, created, and maintain the website for the Geological Society of America's Geobiology and Geomicrobiology division: <http://gsageobiology.blogspot.com>.

### **Paleontological Society of Austin Talks** **November 2015 and February 2017**

Presentation of recent research projects for the Paleontological Society of Austin (composed of children, fossil enthusiasts, and professional geologists).

### **UT Austin UGS Talks** **April 2015 and March 2017**

Presentation of recent research projects and career pathway for the Undergraduate Geological Society Career and Science Talk

### **UT Austin UHRP Talks** **April 2015 and March 2017**

Presentation of recent research projects for the Undergraduate Honors Research Program class.

### **UT Austin Brown Bag Lectures** **October 2014 and March 2017**

Informal presentation of recent research projects for the UT Austin Community (Paleontological Brown Bag).

### **Paleontological Society March for Science coordinator** **April 2017**

Acted as the Paleontological Society's local Austin coordinator for the March for Science.

### **Darwin Day Outreach** **February 2017**

Organized and manned an interactive dinosaur trackway activity for public outreach; kids put on "dino shoes", made a track, and measured their stride to determine speed and side.

### **Guest Lecturer** **November 2014, February 2017**

Lectured in UT Austin classes (11/2014 Mass Extinctions; 02/2017 Modern reefs and corals)

### **JSG Mentor** **Fall 2014 to Spring 2017**

Gave research and career-oriented presentations and participated in discussions with the Jackson School of Geosciences community; JSG Postdoctoral group (Fall 2014), Undergraduate honors class (Spring 2015, 2017), Undergraduate Society (Spring 2015), and First Year Interest Group (Fall 2015).

### **Collaborator on ESI Outreach Lesson Plans** **November 2016**

Collaborated with the UT Environmental Science Institute to build a "Dinosaur Tracks" lesson plan for elementary schools: [www.esi.utexas.edu/files/Dinosaur-Tracks.pdf](http://www.esi.utexas.edu/files/Dinosaur-Tracks.pdf).

### **Hot Science-Cool Talks Science Fair Outreach** **January and October 2016**

Organized and manned a Paleontology booth for public outreach. 01/2016: display of Cretaceous fossils and the K-Pg extinction. 10/2016: interactive dinosaur trackway; kids put on "dino shoes", made a track, and measured their stride to determine speed and side.

**Science advisor****Spring 2015**

Advised Jane Teeling on computer renderings of Cambrian environments and organisms for a NOVA documentary on the Cambrian Explosion as well as Peter Brannen on reef collapse and extinctions for his book, “The Ends of the World” (2017), written for the general public.

**ADDITIONAL TRAINING AND FIELD/LABORATORY EXPERIENCE****UT Austin Workshops****Fall 2017**

Participated in the following training workshops from the Gender and Sexuality Center at UT Austin: Allyship Toolkit Part 1 – Affirming LGBTQA+ People: Interpersonal Allyship (09/2017); Identifying & Interrupting Everyday Intersectional Sexism (11/2017)

**Sedimentology of the Caicos Platform****March 2015 and 2017**

Participated in a week-long field trip in 2015 and 2107 (part of the UT Austin course “Sedimentology of Caicos Platform, B.W.I.” taught by S. Bachtel, C. Kerans, and C. Zahm)

**UT Austin Statistics Short Courses****Fall 2015**

Participated in the following software short courses at UT Austin (department of Statistics): Introduction to R (09/2015); R Graphics (10/2015).

**“On the Cutting Edge” Workshop for Early Career Faculty****June 2014**

Participated in five day workshop focused on helping new faculty members become better teachers, colleagues, mentors, and researchers with the ultimate goal of helping them successfully navigate the tenure process.

**Agouron Institute Advanced Geobiology Course****June 2012**

An eighteen-day field campaign in the Pilbara of Western Australia. Field work included mapping, measuring stratigraphic sections, and collecting samples from Paleoproterozoic carbonate rocks and Iron Formations.

**GSA Short Course: Sequence Stratigraphy for Graduate Students****October 2009**

Two-day short course designed to teach the principles, concepts, and methods of sequence stratigraphy. Exercises included case studies, outcrop, core, well-log, and seismic data.

**Southwest USA Mineral Exploration Field Trip****May 2007**

A seventeen-day trip across the SW USA with a focus on the geological evolution of the states, and mining along the Colorado Mineral Belt (Queen’s University).

**Modern and Pleistocene Carbonate Sediments****September 2006**

One week field trip in Bermuda focused on modern and Pleistocene carbonate sediments, water chemistry, phytoplankton ecology, and coral reef species (Queen’s University).

**CSPG Student Industry Field Trip****May 2006**

Selected for the society-sponsored, two-week field trip of the Canadian Petroleum Industry. Focused on the structural origin of the Rocky Mountains, well logging, reservoirs, seismic imaging, and stratigraphy.

**Safety Courses****1999 to Present**

PADI SCUBA diving Open Water Diver, UT Lab Safety Training (2017 most recently), Lifesaving I, Emergency First Aid and CPR Training (2004), Valid Texas Driver’s License.



## OTHER ACADEMIC EMPLOYMENT

### **NSERC USRA**

**May to August 2006**

Analyzed sediment samples and created a facies map (correlated with oceanography) of the Tasmanian shelf and Bass Straight. Supervisor: Dr. Noel P. James, Queen's University.

### **NSERC USRA**

**May to August 2005**

Created an Ediacaran fossil database and was a field assistant for the NAPC Newfoundland field trip. Supervisor: Dr. Guy Narbonne, Queen's University.

## INVITED PRESENTATIONS

- 2017 American Geophysical Union Fall Meeting Invited Speaker
- 2017 University of Nebraska-Lincoln Invited Speaker (Department Seminar- Stout Lecture)
- 2017 Oklahoma State University Invited Speaker (Department Seminar)
- 2017 Goldschmidt Invited Speaker
- 2017 Paleontological Society of Austin seminar
- 2017 Repsol Invited Speaker
- 2017 Geological Survey of Canada McConnell Club Invited Speaker
- 2016 Texas A&M University, Ecology and Evolutionary Biology research seminar
- 2015 University of Texas, San Antonio, Department of Geological Sciences seminar
- 2015 Paleontological Society of Austin seminar
- 2014 University of Texas at Austin, Jackson School of Geosciences Tech Session talk
- 2014 Bryn Mawr College, Department of Geology seminar
- 2014 Kent State University, Department of Geology colloquium
- 2013 University of Texas at Austin, Jackson School of Geosciences special seminar
- 2013 MIT, Department of Earth, Atmospheric, and Planetary Sciences special seminar
- 2012 Harvard University Department of Earth and Planetary Sciences seminar
- 2012 Massachusetts Institute of Technology, Chemical Oceanography and Geobiology seminar
- 2012 Harvard University, Organismic and Evolutionary Biology colloquia

## RECENT CONFERENCE PRESENTATIONS (FIRST AUTHOR/PRESENTER, THE LAST FIVE YEARS)

**Martindale**, et al. 2017. Environmental and ecological upheaval in shallow marine systems during the Early Jurassic (Pliensbachian and Toarcian). 2017 AGU Session **Invited Speaker**

Tornabene\*, **Martindale**, Wang, Schaller, 2017. Nitrogen Isotopes In Fossil Scleractinian Corals: Evidence Of Photosymbiosis And Nutrient Cycling In Deep Time. Geological Society of America Abstracts with Programs. Vol. 49, No. 6.

Brame\*, Ettinger, N.P.\* Bodin, Kabiri, **Martindale**, 2017. Occurrence and paleoenvironmental significance of Early Jurassic (Pliensbachian-Toarcian) lithiotid-coral reefal deposits from the High Atlas of Morocco. Geological Society of America Abstracts with Programs. Vol. 49, No. 6.

**Martindale**, et al. 2017 Shallow-water records of environmental and ecological change at the Toarcian OAE. 2017 Goldschmidt **Invited Speaker**

**Martindale** et al. 2016. Authigenic Carbonate Fans from Lower Jurassic Marine Shales (Alberta, Canada). Abstract PP13D-07, 2016 AGU Fall Meeting, San Francisco, California, USA.

- Martindale** et al. 2016. Faunal response of macrobenthic assemblages to the Early Jurassic (Toarcian) Oceanic Anoxic Event in Alberta, western Canada. SEPM Conference on Oceanic Anoxic Events Oct. 31 to Nov. 3, 2016, Austin, TX.
- Martindale** et al. 2016. Evolutionary and ecological dynamics of macrobenthic communities across the Toarcian Oceanic Anoxic Event in northeast Panthalassa (Ya Ha Tinda, Alberta, Canada). GSA Abstracts with Programs, Vol. 48, No. 7
- Martindale** et al. 2016. Response of the benthic community to the Toarcian Oceanic Anoxic Event in the Ya Ha Tinda Lagerstätte (Alberta, Canada). 32<sup>nd</sup> International Meeting on Sedimentology, Marrakech, Morocco, 23<sup>rd</sup>-25<sup>th</sup> May, 2016.
- Martindale** et al. 2015. Response of shallow-water carbonates and reef systems to the Toarcian Ocean Anoxic Event (183 MA) on the Dinaric Carbonate Platform (Slovenia). Abstract PP33C-2324, 2015 AGU Fall Meeting, San Francisco, California, USA.
- Martindale** and Košir 2015. Response of shallow-water carbonates and reef systems to the Toarcian Ocean Anoxic Event (183 MA) on the Dinaric Carbonate Platform (Slovenia). GSA Abstracts with Programs, Vol. 47, No. 7: 67.
- Martindale** et al. 2014. A New Jurassic Lagerstätte from Alberta, Canada, preserved during the Toarcian Ocean Anoxic Event. GSA Abstracts with Programs, Vol. 46, No. 6: 279.
- Martindale** et al. 2013, Sea-floor carbonate fans from the Early Jurassic (Pliensbachian-Toarcian): a sedimentological signature of carbon cycle perturbation in deep time. Abstract PP23B-1951, 2013 AGU Fall Meeting, San Francisco, California, USA.
- Martindale** et al. 2013, Reef corals with evidence of photosymbiosis and the evolution of the Upper Triassic Tennenengebirge carbonate platform (Salzburg, Austria). GSA Abstracts with Programs, Vol. 45, No. 7: 534.
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**PROFESSIONAL AFFILIATIONS (NATIONAL AND INTERNATIONAL)**

American Geophysical Union (AGU)  
 American Association of Petroleum Geologists (AAPG)  
 Geochemical Society (GS)  
 Geological Society of America (GSA)  
 International Association of Sedimentologists (IAS)  
 International Palaeontological Association  
 Paleontology Society  
 Society for Advancing Chicanos/Hispanics and Native Americans in Science (SACNAS)  
 Society for Sedimentary Geology (SEPM)

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