CURRICULUM VITAE

Lidya Tarhan
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Department of Geology and Geophysics
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EDUCATION

Ph.D., University of California, Riverside: Riverside, CA, September 2010–December 2013
Program: Paleobiology, Geological Sciences
Dissertation Topic: Exceptional Preservation and Substrate Evolution in Early Paleozoic Marine Shelfal Environments
Advisor: Dr. Mary Droser
Funding: NSF Graduate Research Fellowship (2010-2013)

M.S., University of California, Riverside: Riverside, CA, September 2008–June 2010
Program: Paleobiology, Geological Sciences
Master's Thesis Topic: New Morphological Diversity or Preservational Variability? Resolving the Taphonomic Context of Ediacaran Assemblage-Scale Heterogeneity
Advisor: Dr. Mary Droser

B.A., *magna cum laude*, with distinction, Amherst College: Amherst, MA, September 2004–May 2008
Majors: Geology (concentration in Paleontology) and English
Honors Thesis Topic: Taphonomy and Anatomy of Unusually-Preserved Fossilized Medusae of the Late Cambrian Elk Mound and Potsdam Groups
Advisor: Dr. James Hagadorn

Geology Field Camp: Indiana University Geologic Field Station (IUGFS), Cardwell, MT, June–August 2007

POSITIONS HELD

- **NSF EAR Postdoctoral Fellow**: Yale University (Department of Geology and Geophysics), January 2016–December 2017
- **Yale University Postdoctoral Associate**: Yale University (Department of Geology and Geophysics), January 2014–December 2015, January 2018–present

PROFESSIONAL EXPERIENCE

- **A Career Development Workshop for NSF Geoscience Postdoctoral Researchers** (NCAR-UCAR, Boulder; March 2016): NSF-sponsored career preparation workshop for NSF-funded postdoctoral fellows in the geosciences.
- **Preparing for an Academic Career in the Geosciences Workshop** (University of Colorado, Boulder; July 2013): NSF-, NAGT- and On the Cutting Edge-sponsored workshop for late-stage graduate students and postdoctoral fellows.
- **Participant, NSF-NSFC Workshop: Critical Transitions in the History of Life** (Natural History Museum, Los Angeles; March 2012).
- **Science Writing Internship with Office of Strategic Communications** (University of California, Riverside, CA; Winter-Spring 2010).
- **GSA GeoCorps Field Paleontologist, Bryce Canyon National Park** (Bryce Canyon National Park, UT; Tropic, UT; May-August 2008): Inventory of known fossil-bearing sites in Bryce Canyon National Park and paleontological prospecting for, collection and processing of vertebrate, invertebrate and plant macrofossil and microfossil material.
- **Dean of Faculty Summer Research Fellow, Amherst College Geology Department** (Amherst College, Amherst, MA; Fieldwork: Wisconsin; May-August 2007): Lab and field paleontological work conducting preliminary research for honors thesis on late Cambrian fossilized medusae.

- **Howard Hughes Medical Institute Summer Research Fellow, Amherst College Geology Department** (Amherst College, Amherst, MA; Fieldwork: Wisconsin, New York, Quebec, Ontario; June-August 2005): Lab and field paleontological work researching late Cambrian shoreline environments and the taphonomy and morphology of trace fossils, especially *Climactichnites wilsoni*.

TEACHING AND MENTORING EXPERIENCE

Teaching

- **Guest Lecturer and Laboratory Instructor** (Yale University): "History of Life" (Spring 2019)
- **Guest Lecturer and Laboratory Instructor** (Yale University): "History of Life" (Spring 2018)
- **Guest Lecturer and Laboratory Instructor** (Yale University): "History of Life" (Spring 2017)
- **Guest Lecturer** (Yale University): "Extraordinary Glimpses of Past Life" (Fall 2018)
- **Guest Lecturer** (Yale University): "Earth-Surface Processes" (Spring 2018)
- **Guest Lecturer** (Yale University): "Invertebrates" (Fall 2016)
- **Guest Lecturer** (Yale University): "Extraordinary Glimpses of Past Life" (Fall 2015)
- **Guest Lecturer** (Yale University): "Productivity" (Fall 2015)
- **Co-Instructor** (Yale University): "History of Life" (Spring 2015)
- **Field Trip Co-Instructor, Spain** (Yale University): "Earth-Surface Processes" (Spring 2018)
- **Field Trip Co-Instructor, Barbados** (Yale University): "Paleoenvironments" (Spring 2015)
- **Field Trip Co-Leader, Death Valley, CA** (Yale University): "Paleoenvironments" (Spring 2014)
- **University Teaching Certificate** (University of California, Riverside), Winter-Spring 2012 (awarded June 2012): University-sponsored instructional and professional development program.
- **Teaching Assistant** (University of California, Riverside): "Headlines in the History of Life" (Spring 2010, Spring 2009), "Earth's Climate through Time" (Winter 2010), "The Earth's Crust and Interior" (Introductory Geology; Fall 2009), "Earthquake Country" (Winter 2009).
- **Teaching Assistant** (Amherst College): "Principles of Geology" (Introductory Geology; Fall 2006, Fall 2005, Spring 2005).

Mentoring

- **Minor PhD Dissertation Project** (2017-present) on Cambrian bioturbation: Sophie Westacott (Yale University, Ph.D. '21)
- **PhD Dissertation Project** (2016-present) on taphonomy of Ediacaran microfossils: Xiao Min (Northwest University, Ph.D. student)
- **Summer Research Fellowship** (2016) on Devonian bioturbation and the stratigraphic record of *Rusophycus*: Yasmeen Erritouni (Dartmouth College, A.B. '17)
- **"Extraordinary Glimpses of Past Life" term research project** modeling fossil phosphatization (2015): Tess Maggio (Yale College, B.S. '16)
- **"Extraordinary Glimpses of Past Life" term research project** on experimental silicification of *Metasequoia*, *Nematostella* and cyanobacterial mats (2015): Adrien Gao (Yale College, B.S. '17)
- **Undergraduate research supervisor and fieldwork mentor** (2011-2013): Cyntia Andres (UC Riverside, B.S. '13), Evelyn Conrado (UC Riverside, B.S. '13), James Minor (UC Riverside, B.S. '13), Mounga Nonu (UC Riverside B.S. '13), Alexandra Ruiz (UC Riverside, B.S. '13)
- **First-year advisor**: Bella Rosado (Yale College '22), Nicholas Famularo (Yale College '22)

FELLOWSHIPS, HONORS AND AWARDS

Yale University

- National Science Foundation (NSF) Earth Sciences Postdoctoral Fellowship (2016-2017)
- Yale University Postdoctoral Associateship (2014-2015, 2018-2019)

University of California, Riverside

- National Science Foundation (NSF) Graduate Student Research Fellowship (2010-2013)
- "Best Student Talk," 2012 California Paleontology Conference (2012)

- Dr. Janet M. Boyce Memorial Endowed Fund for Women Majoring in the Sciences (2012-2013)
- Dr. Janet Boyce Memorial Scholarship (2009-2010)
- Chancellor's Distinguished Fellowship (2008-2009)

Amherst College

- John Mason Clarke Fellowship for the study of Geology and Paleontology (2008-2011)
- Walter F. Pond Prize in Geology (2008) (awarded annually to the senior who prepares the most-distinguished geology thesis)
- Phi Beta Kappa (2008)
- Sigma Xi Student Membership (2008)
- Belt-Brophy Prize in Geology (2007) (awarded annually to the junior determined to have shown the greatest promise for success as a geologist)
- Dean of Faculty Summer Research Fellowship (2007)
- Howard Hughes Medical Institute (HHMI) Summer Research Fellowship (2005)

FUNDED GRANTS

2019-2021: **NASA Exobiology Program**, "Did the small inherit the Earth? Analysis of mm-scale Ediacara body and trace fossils (South Australia) with implications for the early evolution of animals" (Co-I and Institutional PI)
2014-2018: **NASA Exobiology Program**, "Catching the 'Second Wave' of the Ediacara Biota: Assessing the Role of Environment, Ecology and Diagenesis" (co-author and grant personnel)
2014: **National Geographic Society** (co-author and grant personnel)
2014: **American Philosophical Society** Lewis and Clark Fund for Exploration and Field Research in Astrobiology
2013: **Desert Legacy Fund** (The Community Foundation) Student Research Grant
2013: **Paleontological Society** (PS) Student Research Grant
2013: **Society for Sedimentary Geology** (SEPM) Student Research Grant
2013: **Evolving Earth Foundation** Research Grant
2013: **American Museum of Natural History** (AMNH) Roosevelt Memorial Fund
2013: **Sigma Xi** Student Grant-in-Aid of Research
2012: **Society for Sedimentary Geology** (SEPM) Student Research Grant
2012: **Ed Picou Fellowship Grant** for Graduate Studies in Earth Science (GCSSEPM)
2012: **American Association of Petroleum Geologists** (AAPG) David Worthington Grant
2012: **InfoQuest Foundation** Student Field Research Grant
2011: **Society for Sedimentary Geology** (SEPM) Student Research Grant
2011: **Geological Society of America** (GSA) Student Research Grant
2011: **American Association of Petroleum Geologists** (AAPG) John E. Kilkenny Memorial Grant
2009: **Society for Sedimentary Geology** (SEPM) Student Research Grant
2009: **Geological Society of America** (GSA) Student Research Grant
2007: **Amherst College Dean of Faculty** Doelling Undergraduate Research Grant
2014: **Yale** Postdoc Travel Fund
2009-2013: **Geological Society of America** (GSA) Student Travel Grants
2010: **Society for Sedimentary Geology** (SEPM) Student Travel Grant

PROFESSIONAL SERVICE AND COMMUNITY OUTREACH

- **Reviewer:** *Alcheringa; Current Biology; Geobiology; Geochimica et Cosmochimica Acta; Geology; GSA Bulletin; GSA Today; Ichnos; Journal of the Geological Society; Journal of Sedimentary Research; Lethaia; Nature Communications; Nature Ecology and Evolution; Palaeogeography, Palaeoclimatology, Palaeoecology; Palaeontology; Palaios; Precambrian Research; Science; Science Advances; Scientific Data; Scientific Reports; Sedimentary Geology; Terra Nova*.
- **Grant Proposal Reviewer**: NSF, NSERC, American Philosophical Society, Palaeontological Association
- **Associate Editor**: *Geobiology; Palaeogeography, Palaeoclimatology, Palaeoecology*

- **Editor, *Ediacaran Environments and Ecosystems***, Special Issue in *Palaeogeography, Palaeoclimatology, Palaeocology* (v. 434, 2015).
- **Co-organizer, 2019 Second Geobiology Society Conference** (June 2019)
- **Symposium Convener and Chair, 2019 North American Paleontological Convention** (Symposium 1: Behavioral Innovations and Environmental Feedbacks: Insights from the Trace Fossil Record and Other Archives) (June 2019)
- **Conference Field Trip Leader, 2019 North American Paleontological Convention** (Ediacaran-Cambrian Transition of the Southwestern USA) (June 2019)
- **Symposium Convener and Chair, 2019 Goldschmidt Conference** (Session 7g: The Rise of Complex Multicellular Life and Ecologies and their Role in the Past and Present Earth System) (August 2019)
- **Symposium Convener and Chair, 2018 5th International Palaeontological Congress** (Session S9: Coevolution of Life and Environments: Integrating the Palaeoecological, Sedimentological and Geochemical Records).
- **Symposium Chair, 2018 5th International Palaeontological Congress** (Session S12: Early Animal Life).
- **Symposium Convener and Chair, 2017 Annual Meeting of the Geological Society of America** (Session T66: Exceptionally Preserved Proterozoic–Early Paleozoic Fossils).
- **Volunteer, Peabody Museum 'Dinosaur Days' ('Meet the Scientist'), February 2015**.
- **Guest Lecturer for Institute of Learning in Retirement, May 2014** (Peabody Museum Extension Course 101, Session 3, "Fossils: How they form, why they matter and the changing face of the seafloor").
- **Symposium Convener and Chair, 2014 North American Paleontological Convention** (Symposium S01: Ediacaran Environments and Ecosystems).
- **Session Chair, 2012 California Paleontology Conference** (Session No. 3; University of California, Riverside).
- **Organizer, 2012 California Paleontology Conference** (University of California, Riverside): California-wide paleontological conference, with an emphasis upon student research and development.
- **Session Chair, 2011 Annual Meeting of the Geological Society of America** (Session No. 120, Paleontology II: Paleobotany and Behavior).
- **Treasurer, Earth Sciences Graduate Student Association (ESGSA)** (Department of Earth Sciences, University of California, Riverside), 2011-2013.
- **Organizer and volunteer, 2011 Climate Change Fair** (University of California, Riverside): Educational outreach event to Riverside community on the science, teaching and communication of climate change.
- **Participant, Geology Education Outreach Program (GEOP)** (Department of Earth Sciences, University of California, Riverside), 2008-2013: Educational, hands-on geology presentations in Riverside Unified School District (RUSD) K-12 schools.

FIELD AREAS AND EXPERIENCE

2009-present – Death Valley region and Great Basin, western USA (Proterozoic-Lower Paleozoic)
2009-present – South and central Australia (Ediacaran)
2010-present – Bahamas (Modern)
2012-present – Newfoundland, Canada (Lower Paleozoic)
2012-present – Appalachian Basin (Lower-Middle Paleozoic)
2015-present – Georgia, USA (Modern)
2018 – Svalbard (Permian-Triassic)
2016 – South China (Neoproterozoic-Lower Paleozoic)
2016 – Rocky Mountain region, USA (Lower Paleozoic)
2016 – Zimbabwe and Botswana (Archean-Paleoproterozoic)
2015 – Barbados (Cenozoic and Modern)
2011 – Central Spain (Lower Paleozoic)
2008, 2013 – Central Utah, USA (Mesozoic)
2007 – Southwestern Montana, USA (Proterozoic-Quaternary)
2005, 2007-2008 – Midwestern and Northeastern USA and Canada (Lower Paleozoic)

2012-2014: National Park Service Scientific Research and Collecting Permit (Study #DEVA-00344): Exceptional preservation and the evolution of seafloor colonization in early Paleozoic marine shelfal environments (Death Valley National Park)
2014-2016: National Park Service Scientific Research and Collecting Permit (Study #DEVA-00393): The evolution of seafloor colonization and exceptional preservation in early Paleozoic marine shelfal environments (Death Valley National Park)
2016-2019: National Park Service Scientific Research and Collecting Permit (Study #DEVA-00393): The evolution of seafloor colonization and exceptional preservation in early Paleozoic marine shelfal environments (Death Valley National Park)

PROFESSIONAL MEMBERSHIPS

- Geological Society of America (GSA)
- Society for Sedimentary Geology (SEPM)
- The Paleontological Society (PS)
- The Palaeontological Association (PalAss)
- Sigma Xi, The Scientific Research Society
- American Chemical Society (ACS)
- National Association of Geoscience Teachers (NAGT)
- Association for Women Geoscientists (AWG)
- Society for Integrative and Comparative Biology (SICB)

SCIENTIFIC PUBLICATIONS

In Review:

ZHAO, M., ZHANG, S., **TARHAN, L.G.**, REINHARD, C. and PLANAVSKY, N.J., In revision, The role of calcium in regulating marine phosphorus burial and atmospheric oxygenation.

Published, In Press or Accepted:

30. KONHAUSER, K.O., HAO, W., LI, Y., VON GUNTEN, K., BISHOP, B.A., ALESSI, D.S., **TARHAN, L.G.**, O'CONNELL, B., ROBBINS, L.J., PLANAVSKY, N.J., AND GINGRAS, M.K., Accepted, *Diopatra cuprea* worm burrow parchment: A cautionary tale of infaunal surface reactivity: *Lethaia*.

29. DROSER, M.L., GEHLING, J.G., **TARHAN, L.G.**, EVANS, S.D., HALL, C.M.S., HUGHES, I.V., HUGHES, E.B., DZAUGIS, M.E., DZAUGIS, M.P., DZAUGIS, P.W. and RICE, D., 2019, Piecing together the puzzle of the Ediacara Biota: Excavation and reconstruction at the Ediacara National Heritage site Nilpena (South Australia): *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 513, p. 132-145.

28. **TARHAN, L.G.**, 2018, Phanerozoic shallow marine sole marks and substrate evolution: *Geology*, v. 46, p. 755-758.

27. **TARHAN, L.G.**, DROSER, M.L., COLE, D.B. and GEHLING, J.G., 2018, Ecological expansion and extinction in the late Ediacaran: weighing the evidence for environmental and biotic drivers. *Integrative and Comparative Biology*, v. 58, p. 688-702 (invited contribution).

26. WEI, G.-Y., PLANAVSKY, N.J., **TARHAN, L.G.**, CHEN, X., WEI, W., LI, D. and LING, H.-F., 2018, Marine redox fluctuation as a potential trigger for the Cambrian explosion: *Geology*, v. 46, p. 587-590.

25. **TARHAN, L.G.**, 2018, The early Paleozoic development of bioturbation—evolutionary and geobiological consequences: *Earth-Science Reviews* (invited review), v.178, p. 177-207.

24. **TARHAN, L.G.**, PLANAVSKY, N.J., WANG, X., BELLEFROID, E.J., DROSER, M.L. and GEHLING, J.G., 2018, Late-stage 'ferruginization' of the Ediacara Member (Rawnsley Quartzite, South Australia): Insights from uranium isotopes: *Geobiology*, v. 16, p. 35-48.

23. DROSER, M.L., **TARHAN, L.G.** and GEHLING, J.G., 2017, The rise of animals in a changing environment: Global ecological innovation in the late Ediacaran: *Annual Review of Earth and Planetary Sciences*, v. 45, p. 593-617.

22. **TARHAN, L.G.**, 2017, Meiofauna mute the Cambrian Explosion: *Nature Ecology and Evolution*, doi: 10.1038/s41559-017-0324-2.

21. MCMAHON, S., **TARHAN, L.G.** and BRIGGS, D.E.G., 2017, Decay of the sea anemone *Metridium* (Actiniaria): Implications for the preservation of soft-bodied diploblast-grade animals: *Palaios*, v. 32, p. 388-395.

20. **TARHAN, L.G.**, DROSER, M.L., GEHLING, J.G. and DZAUGIS, M.P., 2017, Microbial mat sandwiches and other anactualistic sedimentary features of the Ediacara Member (Rawnsley Quartzite, South Australia): Implications for interpretation of the Ediacaran sedimentary record: *Palaios*, v. 32, p. 181-194.

19. SAPPENFIELD, A.D., **TARHAN, L.G.** and DROSER, M.L., 2017, Earth's oldest jellyfish strandings: A unique taphonomic window or just another day at the beach?: *Geological Magazine*, v. 154, p. 859-874.

18. **TARHAN, L.G.**, HOOD, A.V.S., DROSER, M.L., GEHLING, J.G. and BRIGGS, D.E.G., 2017, Delusions of dirt: Ediacara organisms were not soil dwellers—Reply: *Geology*, doi:10.1130/G38858Y.1.

17. **TARHAN, L.G.**, HOOD, A.V.S., DROSER, M.L., GEHLING, J.G. and BRIGGS, D.E.G., 2016, Exceptional preservation of soft-bodied Ediacara Biota promoted by silica-rich oceans: *Geology*, v. 44, p. 951-954.

16. ANDERSON, R.P., **TARHAN, L.G.**, CUMMINGS, K.E., PLANAVSKY, N.P. and BJØRNERUD, M., 2016, Macroscopic structures in the 1.1 Ga continental Copper Harbor Formation: Concretions or fossils?: *Palaios*, v. 31, p. 327-338.

15. **TARHAN, L.G.**, HADDAD, E., HALL, C.M.S., DAHL, R.M., HANCOCK, L.G., HENRY, S.E., JOEL, L.V., THOMSON, T.J. and DROSER, M.L., 2016, Seafloor colonization in the earliest Paleozoic: evidence from the Cambrian of Death Valley: *Proceedings of the Death Valley Natural History Association*, p. 355-379 (Invited contribution).

14. DARROCH, S., LOCATELLI, E., MCCOY, V., CLARK, E., ANDERSON, R., **TARHAN, L.** and HULL, P., 2016, Taphonomic disparity in foraminifera as a paleo-indicator for seagrass: *Palaios*, v. 31, p. 242-258.

13. MCCOY, V.E., SAUPE, E.E., LAMSDELL, J.C., **TARHAN, L.G.**, MCMAHON, S., LIDGARD, S., MAYER, P., WHALEN, C.D., SORIANO, C., FINNEY, L., VOGT, S., CLARK, E.G., ANDERSON, R.P., PETERMANN, H., LOCATELLI, E.R. and BRIGGS, D.E.G., 2016, The Tully Monster is a vertebrate: *Nature*, v. 532, p. 496-499.

12. LI, C., PLANAVSKY, N.J., SHI, W., ZHANG, Z., ZHOU, C., CHENG, M., **TARHAN, L.G.**, LUO, G. and XIE, S., 2015, Ediacaran marine redox heterogeneity and early animal ecosystems: *Scientific Reports*, v. 5, doi: 10.1038/srep17097.

11. **TARHAN, L.G.**, DROSER, M.L., PLANAVSKY, N.J. and JOHNSTON, D., 2015, Protracted development of bioturbation through the early Palaeozoic Era: *Nature Geoscience*, v. 8, p. 865-869.

10. PLANAVSKY, N.J., **TARHAN, L.G.**, BELLEFROID, E.J., EVANS, D.A.D., REINHARD, C.T., LOVE, G. and LYONS, T.W., 2015, Late Proterozoic transitions in climate, oxygen, and tectonics, and the rise of complex life: The Paleontological Society Papers, v. 21, p. 47-82.

9. **TARHAN, L.G.**, and LAFLAMME, M., 2015, An examination of the evolution of Ediacaran paleoenvironmental and paleoecological research: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 434, p. 1-3.

8. **TARHAN, L.G.**, DROSER, M.L. and GEHLING, J.G., 2015, Depositional and preservational environments of the Ediacara Member, Rawnsley Quartzite (South Australia): Assessment of paleoenvironmental proxies and the timing of 'ferruginization:' *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 434, p. 4-13.

7. **TARHAN, L.G.**, DROSER, M.L., GEHLING, J.G. and DZAUGIS, M.P., 2015, Taphonomy and morphology of the Ediacara form genus *Aspidella*: *Precambrian Research*, v. 257, p. 124-136.

6. **TARHAN, L.G.**, DROSER, M.L. and HUGHES, N., 2014, Mixed layer development and exceptional trace fossil preservation in Cambro-Ordovician siliciclastic strata: *Cambro-Ordovician Studies V*, Memoirs of the Association of Australasian Palaeontologists (ed. Laurie, J.), v. 45, p. 71-88.

5. **TARHAN, L.G.** and DROSER, M.L., 2014, Widespread delayed mixing in early to middle Cambrian marine shelfal settings: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 399, p. 310-322.

4. **TARHAN, L.G.**, HUGHES, N.C., MYROW, P.M., BHARGAVA, O.N., AHLUWALIA, A.D. and KUDRYAVTSEV, A.B., 2014, Precambrian–Cambrian boundary interval occurrence and form of the enigmatic tubular body fossil *Shaanxilithes ningqiangensis* from the Lesser Himalaya of India: *Palaeontology*, v. 57, p. 283-298.

3. **TARHAN, L.G.**, PLANAVSKY, N.J., LAUMER, C.E., STOLZ, J.F. and REID, R.P., 2013, Microbial mat controls on infaunal abundance and diversity in modern marine microbialites: *Geobiology*, v. 11, p. 485-497.

2. **TARHAN, L.G.**, JENSEN, S. and DROSER, M.L., 2012, Furrows and firmgrounds: evidence for predation and implications for Palaeozoic substrate evolution in *Rusophycus* "hunting burrows" from the Silurian of east-central New York: *Lethaia*, v. 45, p. 329-341.

1. **TARHAN, L.G.**, DROSER, M.L. and GEHLING, J.G., 2010, Taphonomic controls on Ediacaran diversity: uncovering the holdfast origin of morphologically variable enigmatic structures: *Palaios*, v. 25, p. 823-830.

OTHER PUBLICATIONS

TARHAN, L.G., 2012, T.A. approachability: the distant, the inviting and the nosy (but in a good way…): Teaching Assistant Development Program/University Teaching Certificate, University of California, Riverside, http://utc.ucr.edu/?page_id=142.

TARHAN, L.G., 2010, Workshop helps graduate students compete for NSF grants: Inside UCR, v. 6, no. 9, p. 3.

INVITED SEMINARS

2018: University of British Columbia (Department of Earth, Ocean and Atmospheric Sciences); University of Texas at Austin (Department of Geological Sciences).
2017: Amherst College (Five College Geology Seminar Series); Pomona College (Geology Department); University of California, Riverside (Alternative Earths Astrobiology Seminar Series).
2016: Northwest University (Department of Geology; Xi'an, China); Chinese Academy of Geological Sciences (Beijing, China); Colorado College (Geology Department).
2015: Lamont-Doherty Earth Observatory (Biology and Paleoenvironment Seminar Series).
2013: Dartmouth College (Department of Earth Sciences).
2012: Dartmouth College (Department of Earth Sciences).

CONFERENCE PRESENTATIONS

TARHAN, L.G., ZHAO, M. and PLANAVSKY, N., 2018, The impact of early Paleozoic bioturbation upon phosphorus cycling: Goldschmidt 2018, Session 10D (Invited talk).

ZHAO, M., PLANAVSKY, N., **TARHAN, L.**, ZHANG, S. and REINHARD, C., 2018, Significant influence of seawater calcium concentration on marine phosphorus burial: Goldschmidt 2018, Session 3L (Talk).

WEI, G., PLANAVSKY, N., **TARHAN, L.**, CHEN, X., WEI, W., LI, D. and LING, H., 2018, Environmental fluctuation triggered the Cambrian Explosion?: Goldschmidt 2018, Session 7B (Talk).

TARHAN, L.G., DROSER, M.L. and GEHLING, J.G., 2018, The importance of substrate for Ediacara paleoecology, paleoenvironment and taphonomy: 5th International Paleontological Congress (Talk).

TARHAN, L.G., DROSER, M.L. and GEHLING, J.G., 2018, Ecological innovation in the late Ediacaran: Society for Integrative and Comparative Biology 2018 Annual Meeting (Invited symposium talk).

TARHAN, L.G., HOOD, A.V.S., DROSER, M.L., GEHLING, J.G. and BRIGGS, D.E.G., 2017, A silica driver of Ediacara-style fossilization: Geological Society of America Abstracts with Programs: Paper No. 198-5, v. 49 (Talk).

DROSER, M.L., GEHLING, J.G., EVANS, S.D., **TARHAN, L.G.**, HALL, C.M.S., DZAUGIS, M.E., DZAUGIS, M.P., DZAUGIS, P., HUGHES, I.V., HUGHES, E.B. and RICE, D., 2017, Snapshots and long exposures: Picturing life in the Ediacaran: Geological Society of America Abstracts with Programs: Paper No. 100-1, v. 49 (Talk given by M.L. Droser).

TARHAN, L.G., 2017, Development of bioturbation and implications for early Paleozoic biogeochemical cycling: Goldschmidt 2017, Session 14D (Invited talk).

TARHAN, L.G., 2017, The Protracted development of bioturbation through the early Paleozoic: 5th Nereis Park Conference—Biological Modification of the Seabed: Biogeochemical and Ecological Processes in a Changing World, Session 1, p. 8-9 (Talk).

TARHAN, L.G., HOOD, A.V.S., DROSER, M.L., GEHLING, J.G. and BRIGGS, D.E.G., 2017, Exceptional preservation of soft-bodied Ediacara Biota promoted by silica-rich oceans: 2017 International Symposium on the Ediacaran-Cambrian Transition, Session 7B, p. 115 (Talk).

TARHAN, L.G., 2017, Development of bioturbation and implications for early Palaeozoic biogeochemical cycling: Geobiology Society Conference 2017 (Invited talk).

TARHAN, L.G., DROSER, M.L., GEHLING, J.G. and Dzaugis, M.P., 2017, Microbial mat sandwiches and other anactualistic sedimentary features of the Ediacara Member (Rawnsley Quartzite, South Australia): Implications for interpretation of the Ediacaran sedimentary record: Lyell Meeting 2017: Sticking Together. The Geological Society London, p. 67 (Talk).

TARHAN, L.G., 2017, Preservation and paleoecology of the Ediacara Biota—Earth's earliest complex communities: Women of Earth Science Symposium. Yale University, Department of Geology and Geophysics (Talk).

TARHAN, L.G., HOOD, A.V.S., DROSER, M.L., GEHLING, J.G. and BRIGGS, D.E.G., 2016, Exceptional preservation of the soft-bodied Ediacara Biota promoted by silica-rich oceans: Geological Society of America Abstracts with Programs: Paper No. 183-3, v. 48 (Talk).

TARHAN, L.G., 2016, Protracted development of bioturbation and implications for global biogeochemical cycling through the early Paleozoic: Geological Society of America Abstracts with Programs: Paper No. 224-2, v. 48 (Invited talk).

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