updated March 2021

SUSANNAH M. PORTER
CURRICULUM VITAE

Department of Earth Science
University of California at Santa Barbara
Santa Barbara, CA 93106

EDUCATION

Harvard University, Ph.D. Biology, February 2002. Advisor: Andrew H. Knoll.
Thesis title: Windows on Early Eukaryotic and Early Animal Evolution

Yale University, B.A. Mathematics, May 1995, *magna cum laude*

POSITIONS HELD

Full Professor, Dept. of Earth Science, UCSB, 2017–present.
Vice Chair, Dept. of Earth Science, UCSB, 2014–present.
Graduate Advisor, Dept. of Earth Science, UCSB, 2014–present.
Associate Director, Earth Research Institute, UCSB, 2011–present.
Associate Professor, Dept. of Earth Science, UCSB, 2010–17.
Assistant Professor, Dept. of Earth Science, UCSB, 2003–10 (on maternity leave 2004, 2009).
NRC Post-Doctoral Fellow, NASA Astrobiology Institute, UCLA, 2002–03.
Post-Doctoral Fellow, Harvard University, Spring 2002.

HONORS

2019 Elected Fellow of the Paleontological Society.
2018 Most Helpful Professor, voted by Earth Science Graduate Students.
2018 University of New Mexico, Department of Earth Science Northrup Distinguished Lecturer.
2017 GSA Geobiology and Geomicrobiology Division Post-Tenure Award.
2013 W. Storrs Cole Memorial Research Award, Geological Society of America.
2013 UCSB Distinguished Teaching Award.
2009 Faculty of the Year, voted by UCSB Earth Science Graduate Students.
2006 Faculty of the Year, voted by UCSB Earth Science Graduate Students.
2006 Professor of the Year, voted by UCSB Earth Science Majors.
1995, 2000, 2001 Derek Bok Certificate of Distinction in Teaching, Harvard University.
1996–99 NSF Graduate Student Fellowship.
1995 Rhodes Scholar regional finalist.
1995 Anthony D. Stanley Prize, awarded for excellence in pure and applied mathematics. Yale College.
1995 US Rowing Academic All-American, first team.
1994 Francis Gordon Brown ‘01 Yale College Prize, awarded each year to one student at Yale for excellence in academics, athletics, and character.
1994 Phi Beta Kappa.
1991 Presidential Scholar.

PROFESSIONAL ACTIVITIES

Invited Talks

2021 Keynote Speaker, Theme 8m: Towards a high-resolution chronology of the Pre-Cambrian biosphere, Goldschmidt Meeting (planned)
2021 Department Colloquium, Syracuse University (planned)
2021 Symposium on Biomineralization, American Physical Society Annual Meeting
2020 Electronic Symposium on Protistology.
2019 Pardee Keynote Symposium, Geological Society of America Annual Meeting
2019 Keynote Speaker, Biomineralization XV: 15th International Symposium on Biomineralization
2019 Meeting on the Origin and Rise of Complex Life; Royal Society of London
2019 Geology Department Colloquium, University of Melbourne
2018 Geochemistry group, University College London
2018 University of Edinburgh Astrobiology Seminar Series
2018 Distinguished Lecturer Series, University of New Mexico.
2017 Department Colloquium; University of Sao Paolo, Brazil.
2017 Topical Session: T58: Oxygen and Ecosystems from the Proterozoic to the Paleozoic, Geological Society of America Annual Meeting.
2016 Keynote Speaker, International Society of Testate Amoebae Meeting, Sao Paolo, Brazil.
2015 Topical Session: Timing of the Origin and Evolution of Unicellular Eukaryotes, Geological Society of America Annual Meeting.
2013 Cum Laude Speaker, Cate School, Carpinteria, CA.
2013 Department Colloquium, Yale University.
2013 Keynote speaker, International Association of Sedimentologists Meeting, Manchester, UK.
2013 Department Colloquium, University of Chicago.
2013 Department Colloquium, Princeton.
2013 Gordon Research Conference on Geobiology, Ventura, CA.
2012 TEDxUCSB
2012 Department Colloquium, UC Riverside.
2012 Department Colloquium, UCLA.
2012 Critical Transitions in Earth History Workshop, sponsored by NSF and NSF-China.
2012 Fermor Meeting, Royal Geological Society of London.
2012 Bartle Lecturer, Binghamton University (postponed).
2011 Topical Session: New Horizons in Precambrian Palynology and Paleobiology. Geological Society of America.
2011 Pomona College, Departmental Seminar Series.
2010 Canadian Institute for Advanced Research (CIFAR), Integrated Microbial Diversity Annual Meeting.
2010 University of California, Los Angeles, Departmental Seminar Series.
2009 British Museum of Natural History (declined due to childbearing leave).
2009 Princeton University, Earth History Symposium.
2008 Topical Session: Paleontological and Sedimentological Consequences of Calcite and Aragonite Sea Dynamics, Geological Society of America National Meeting.
2007 Yale University, Departmental Seminar Series.
2007 Stanford University, Paleobiology Seminar Series.
2007 University of British Columbia, Departmental Seminar Series.
2007 California Institute of Technology, Graduate Student Seminar Series.
2007 Utah State University, Departmental Seminar Series.
2006 Committee on the Origin and Evolution of Life, Mars Astrobiology Task Group, Space Studies Board—Board on Life Sciences (National Research Council).
2006 University of California at Riverside, Departmental Seminar Series.

2006 University of Washington, Departmental Seminar Series.
2005 University of Southern California, Departmental Seminar Series.
2005 California Institute of Technology, Graduate Student Seminar Series.
2005 University of California at Davis, Departmental Seminar Series.
2005 Stanford University, Seminar Series on Biosignatures.
2005 University of Washington, Departmental Seminar Series.
2005 Natural History Museum, Stockholm, Sweden. Museum Seminar Series.
2004 NASA/CIFAR workshop on "Lateral gene transfer and the origins of eukaryotes".
2004 Geobiology Mini-Symposium, Early Evolution of Microbial Eukaryotes. Agouron Institute, Geobiology summer course.
2004 Topical session: Protistan Paleobiodiversity: Understanding Evolutionary Patterns. Geological Society of America Annual Meeting.
2004 Paleontological Society Short Course, Biological Revolutions in the Neoproterozoic and Cambrian. Geological Society of America Annual Meeting.
2003 UCLA Center for the Study of the Evolution and Origin of Life.

Workshops
2015 Vouchering the Stratigraphic Record (sponsored by ICS & NSF).
2012 Critical Transitions in Earth History Workshop (sponsored by NSF & NSF-China)
2006 Fossil and Molecular Divergence Times for the Tree of Life. NESCent.
2004 Lateral Gene Transfer and the Origins of Eukaryotes. NASA/CIAR.
2003 Early Career Faculty: Teaching, Research, and Managing your Career. National Association of Geoscience Teachers and DLESE.
2003 Calibration of the Geological Timescale. National Science Foundation.

Professional Service
2021–present Chair, Paleontological Society Fellows Committee
2020 Panel Member, NASA Exobiology
2012–20 Secretary, Subcommission on Cryogenian Stratigraphy
2008–present Member, Editorial Board, *Geobiology*.
2019 Panel Member, Swedish Research Council.
2017–19 Co-editor, Special Issue of *Emerging Topics in Life Sciences* on "Early Earth and the Rise of Complex Life"
2016–18 Co-editor, Special Issue of *Precambrian Research*, "Descent into the Cryogenian"
2015 Panel Member, NSF Sedimentary Geology and Paleontology.
2008–10 Member, Paleontological Society's Committee on Nominations.
2008–11 Member, Geological Society of America's Committee on Research and Grants.
2003 Panel Member, NASA Exobiology.

FIELD EXPERIENCE

2018, 2019 Semail Ophiolite, Oman Mountains, Oman (supporting role in teaching field class)
2017 Grand Canyon Supergroup, Grand Canyon, Arizona; Neoproterozoic paleontology.
2016 Forteau Formation, Labrador, Canada; Cambrian paleontology.
2014, 2015 Southern Great Basin, Nevada; Cambrian paleontology.
2010 Togari and Grassy groups, NW Tasmania and King Island; Neoproterozoic paleontology.
2008 Shaanxi Province, China. Meischucunian small skeletal fossils.
2006 Yunnan Province, China. Meishucunian small skeletal fossils.
2003, 2016 Uinta Mountains, Utah. Paleontology of the Neoproterozoic Uinta Mountain Group.
2002 Vindhyan Basin, Uttar Pradesh & Madhya Pradesh, India. Field workshop on the Mesoproterozoic Vindhyan Supergroup.

2002 Friday Harbor Labs, Washington. Summer laboratory course on marine algae.
1999 Volta Basin, western Africa. Neoproterozoic carbonate chemostratigraphy.
1998, 1999 Grand Canyon, Arizona. Paleontology of the Neoproterozoic Chuar Group.
1998 MacArthur Basin, Northern Territory, and Georgina Basin, Queensland, Australia. Paleoproterozoic and Cambrian paleontology.
1998 Guadalupe Mountains, Texas. Sequence stratigraphy of a Permian reef complex.
1997 Friday Harbor Labs, Washington. Summer laboratory course on marine invertebrates.
1997 Inner Mongolia, China. Eolian stratigraphy and Quaternary climate change.
1994 Olorgesailie, Kenya. Hominid paleontology.
1993 Tibetan Plateau, China. Loess stratigraphy and Quaternary climate change.
1989 Mauna Kea, Hawaii. Volcanic loess and Quaternary climate change.

STUDENTS AND POSTDOCTORAL ASSOCIATES

High School students
Caitlin Cain, 2013; Emma Lieberman, 2015.

Undergraduate students
Robin Nagy, 2003; Amy Luong, 2004; Tiffany Satoorian, 2005; Ryan Wopschall, 2005; Jennifer Osborne, 2005-2006; Tova Michlin, 2006; Kayla Pettit, 2005-2007; Mitchell Prante, 2005-2007; Chris Emerling, 2008-2009; Marites Villarosa Garcia, 2008-2011; Bryan Juarez, 2012; Thomas Cao, 2012; Ashley Kammet, 2013; Israel Mangana, 2013; Franzi Shelton, 2014; Shekhar Paudel, 2015; Sheryl Bermudez, 2015–2016; Meghna Rao, 2016–2017; Curtis Cha, 2017; Kimverley Garcia, 2017; Cord North, 2017.

Graduate Students
Robin Nagy, M.S., 2007; John Moore, Ph.D. 2013; Leigh Anne Riedman, Ph.D., 2014; Miranda Stripe, M.S., 2015; Abby Wyant M.S. 2015; Christina Woltz, Ph.D. (started 2016); Kelly Tingle, M.S. (started 2019).

Post-Doctoral Associates
Dr. Michael Vendrasco, 2005–2007; Dr. John Moore, 2014–present; Heda Agić, 2018–present; Dr. Leigh Anne Riedman (2020–present).

FUNDING
(funds listed are my share only, not necessarily total funds)

Tracing the geologic record of eukaryotes. Simons Foundation 2020–22. $192,855.

The role of mineralogy and microstructure in post-mortem phosphatization of fossil shells. UCSB Academic Senate Faculty Research Grant 2020–21. $6,999.

Collaborative Research: Using organic carbon isotopes of single microfossils to illuminate Proterozoic eukaryotic ecosystems. National Science Foundation—Sedimentary Geology and Paleontology 2019–21. $277,038.

The role of clay minerals in preserving the fossil record of early life. UCSB Academic Senate Faculty Research Grant 2017–18. $3,000.

Controls on the preservation of organic-walled microfossils: the effect of organic matter concentration in shales. UCSB Academic Senate Faculty Research Grant 2017–18. $8,000.

Fossil evidence for predation in early protistan ecosystems. UCSB Academic Senate Faculty Research Grant 2016–17. $5,690.

The early diversification of eukaryotic organisms: fossils of the mid-Neoproterozoic (~750 million-year-old) Visingsö Group, southern Sweden. UCSB Academic Senate Faculty Research Grant 2015–16. $7,850.

Collaborative Research: Toward a global timeline of biological and ocean geochemical change during the early Cambrian. National Science Foundation—Integrated Earth Systems. 2014–17. $421,588.

Reconstructing the morphology, ultrastructure, and biological affinities of acritarchs from the >742 ± 6 million-year-old Chuar Group, Grand Canyon, Arizona. Geological Society of America, W. Storrs Cole Memorial Research Award. 2013–14. $7,600.

Collaborative Research: Estimating the Tempo of the Cambrian Explosion. National Science Foundation—Sedimentary Geology and Paleontology Program, Division of Earth Sciences. 2013–14. $40,000.

Using TEM and SEM to Understand the Biological Affinities of Precambrian microfossils. UCSB Academic Senate Faculty Research Grant. 2012–13. $5,700.

Collaborative Research: Ocean Oxidation and the Biosphere during Neoproterozoic Glaciation. National Science Foundation—Sedimentary Geology and Paleontology Program, Division of Earth Sciences. 2009–12. $218,098.

Evidence for Eutrophication During Neoproterozoic Low-Latitude Glaciations. Palaeontological Association Research Grant. 2010–11. £6,820. (~$11,000).

Enigmatic Early Animal Fossils from the Cambrian of China. UCSB Academic Senate Faculty Research Grant. Start Date: 2008–09. $6,420.

Investigating the Influence of Seawater Chemistry on the Evolution of Carbonate Biomineralization. UCSB Academic Senate Faculty Research Grant. 2007–08. $4,000.

Acquisition of a New Electron Imaging Facility. National Science Foundation—Instrumentation and Facilities Program, Division of Earth Sciences. 2007. $299,745.

Using Skeletal Microstructure to Understand Early Animal Biomineralization. NASA Astrobiology: Exobiology and Evolutionary Biology. 2005–07. $190,939.

Dynamical Change in Global Biogeochemical Cycles Accompanying Early Animal Evolution (PI: Daniel Rothman, MIT). National Science Foundation: Biocomplexity in the Environment: Coupled Biogeochemical Cycles. 2004–09. (Collaborator). $52,484.

Understanding Eukaryotic Diversification through Paleoecological Studies of the Middle Neoproterozoic Chuar Group and Red Pine Shale, Western United States. UCSB Academic Senate Research Grant, 2004–05. $5,000.

From Genes to Stars: An Integrated Study of the Prospects for Life in the Cosmos (PI: Edward Young, UCLA). NASA Astrobiology Institute. Performance Period: October 01, 2003 to September 30, 2008. (Collaborator). $40,597.

PUBLICATIONS
(*student; °postdoc)

°Moore J., **Porter, S.M**., Webster, M. and Maloof, A., In press. First record of cambroclaves from Laurentia. *Acta Palaeontologica Polonica.*

°Riedman, L. A., **Porter, S. M.,** and Czaja, A. 2021. Globally distributed phosphatic scale microfossils of the mid-Neoproterozoic. *Geobiology*. https://doi.org/10.1111/gbi.12439

*Woltz, C., **Porter, S.,** °Agic, H., Dehler, C., Junium, C., °Riedman, L. A., Hodgkiss, M., Wörndle, S., and Halverson, G. 2021. Total organic carbon and the preservation of organic-walled microfossils in Precambrian shale. *Geology* 49, https://doi.org/10.1130/G48116.1

Halverson, G., **Porter, S.,** and Shields-Zhou. 2020. The Tonian and Cryogenian periods. *In* Gradstein, F., Ogg, J., Schmitz, M., and Ogg, G., Geologic Timescale 2020. Elsevier. doi.org/10.1016/B978-0-444-63798-7.00017-3

Porter, S. M. 2020. Insights into eukaryogenesis from the fossil record. *Interface Focus* 10 (4), 20190105.

Cole, D., Mills, D., Erwin, D., Sperling, E., **Porter, S.,** Reinhard, C., and Planavsky, N. 2020. On the co-evolution of surface oxygen levels and animals. *Geobiology* 18 (3), 260-281.

°Moore, J.L, **Porter, S.M**., Webster, M., and Maloof, A. 2020. Chancelloriid sclerites from the Dyeran–Delamaran (lower–middle Cambrian) boundary interval of the Pioche–Caliente region, Nevada, USA. *Papers in Palaeontology*. https://doi.org/10.1002/spp2.1274.

Dahl, T. W., Connelly, J. M., Li, D., Kouchinsky, A., Gill, B. C., **Porter, S.,** Maloof., A., and Bizzarro, M. 2019. Atmosphere-ocean oxygen and productivity dynamics during early animal radiations. *Proceedings of the National Academy of Sciences* 116 (39), 19352-19361.

Gilbert, P., **Porter, S**., Sun, C-Y., Xiao, S., Gibson, B.M., Shenkar N., and Knoll. A. 2019. Biomineralization by particle attachment in early animals. *Proceedings of the National Academy of Sciences* 116 (36) 17659-17665.

Morais, L., Lahr D., Rudnitzki, I., Freitas, B., Romero, G., **Porter, S**., Knoll, A., and Fairchild, T. 2019. Insights into VSM diversity and Neoproterozoic biostratigraphy in the light of recent Brazilian discoveries. *Journal of Paleontology* 93(4): 612-627.

Porter, S. and °Riedman, L. A. 2019. Evolution: ancient fossilized amoebae find their home in the tree. *Current Biology* 29, R200-R223.

Porter, S., Agić, H., and °Riedman, L. A. 2018. Anoxic ecosystems and early eukaryotes. *Emerging Topics in Life Sciences* 2(2) 299–309.

Halverson, G., **Porter, S**., and Gibson, T. 2018. Dating the late Proterozoic record. *Emerging Topics in Life Sciences* 2(2): 137–147.

Lyons, T., Droser, M., Yau, K., and **Porter, S**. 2018. Early Earth and the rise of complex life. *Emerging Topics in Life Sciences* 2 (2): 121–124.

Shields-Zhou, G., Halverson, G., and **Porter, S**. 2018. Descent into the Cryogenian. *Precambrian Research* 319:1–5.

Moore°, J.L., and **Porter, S.M.** 2018. Plywood-like shell microstructures in hyoliths from the middle Cambrian (Drumian) Gowers Formation, Georgina Basin, Australia. *Palaeontology* 61 (3): 441–467.

Riedman*****, L.A., **Porter, S.M.,** and Calver, C. 2018. Vase-shaped microfossil biostratigraphy with new data from Tasmania, Svalbard, Greenland, Sweden and the Yukon. *Precambrian Research* 319: 19–36.

Vendrasco, M. J., Checa. A.G., and **Porter, S.M.** 2017. Shell microstructures and tubules in the unusual Cambrian hyolith *Cupitheca. Spanish Journal of Paleontology* 32(1): 95–108.

Dehler, C.M., Gehrels, G., **Porter, S.M.**, Heizler, M., Cox, G., Karlstrom, K., Crossey, L., and Timmons, M. 2017. Correlation of the mid-Neoproterozoic Chuar Group, Uinta Mountain Group, and Pahrump Group (ChUMP strata), western U.S. Implications for a changing Earth System at ca. 740–780 Ma. *Geological Society of America Bulletin* 129 (5-6): 607-624.

Porter, S.M., and *Riedman, L.A. 2016. Systematics of organic-walled microfossils from the ~780–740 Ma Chuar Group, Grand Canyon, Arizona. *Journal of Paleontology* 90: 815-853.

*Riedman, L.A. and **Porter, S.M**. 2016. Organic-walled microfossils of the early to mid-Neoproterozoic Alinya Formation, Officer Basin, Australia. *Journal of Paleontology* 90: 854-897.

Porter, S.M. 2016. Tiny vampires in ancient seas: evidence for predation via perforation in fossils from the 780–740 Ma Chuar Group, Grand Canyon, USA. *Proceedings of the Royal Society B* 283: 20160221.

Shields-Zhou, G., **Porter, S.M**., and Halverson, G.P. 2016. A new rock-based definition for the Cryogenian Period (circa 720 – 635 Ma). *Episodes* 39: 3–8.

Brocks, J. J., Jarrett, A.J.M., Sirantoine, E., Kenig, F., Moczydłowska, M., **Porter, S**. and Hope, J. 2016. Early sponges and toxic protists: possible sources of cryostane, an age diagnostic biomarker antedating Sturtian Snowball Earth. *Geobiology*. doi:10.1111/gbi.12165.

Vendrasco, M. J., Rodríguez-Navarro, A. B., Checa, A. G., Devaere, L., and **Porter, S.M.** 2016. To infer the early evolution of mollusc shell microstructures. Pp. 113-133 *in* Biomineralization: From Fundamentals to Biomaterials and Environmental Issues, Marin, F., Brümmer, F., Checa, A., Furtos, G., Lesci, I.G., and Siller, L. (eds.). *Key Engineering Materials*, v. 672.

*Riedman, L.A., **Porter, S.M**., Halverson, G.P., Hurtgen, M.T., and Junium, C.K. 2014. Organic-walled microfossil assemblages from glacial and interglacial Neoproterozoic units of Australia and Svalbard. *Geology* 42:1011-1014.

*Moore, J.L., **Porter, S.M**., and Li, G. 2014. Two unusual small shelly fossils from the lower Cambrian of southeastern Shaanxi Province, China. *Journal of Paleontology* 88: 348-358.

*Moore, J.L., Li, G., and **Porter, S.M**. 2014. Chancelloriid sclerites from the Lower Cambrian (Meishucunian) of eastern Yunnan, China, and the early history of the group. *Palaeontology* 57: 833-878.

Dehler, C. M., **Porter, S. M.,** and Timmons, M. 2012. The Neoproterozoic Earth System revealed

from the Chuar Group of Grand Canyon. *In* Timmons, J.M., and Karlstrom, K.E., eds., Grand Canyon Geology: Two Billion Years of Earth's History: *Geological Society of America Special Paper* 489, p. 49–72, doi:10.1130/2012.2489(03).

°Vendrasco, M.J., Kouchinsky, A., **Porter, S.M**., and Fernandez, C. 2011. Phylogeny and escalation in *Mellopegma* and other Cambrian molluscs. *Palaeontologica Electronica* 14: 11A.

Porter, S.M. 2011. The rise of predators. *Geology* 39:607-608.

Maloof, A.C., **Porter, S.M.,** *Moore, J.L., Dudás, F.Ö., Bowring, S.A., Higgins, J. A., Fike, D. A., and Eddy, M.P. 2010. The earliest Cambrian record of animals and ocean geochemical change. *Geological Society of America Bulletin* 122:1731-1774.

*Moore, J.L. **Porter, S.M.**, Steiner, M., and Li, G. 2010. *Cambrothyra ampulliformis*, an unusual coeloscleritophoran from the lower Cambrian of Shaanxi Province, China. *Journal of Paleontology* 84: 1040-1060.

Porter, S.M. 2010. Calcite and aragonite seas and the *de novo* evolution of carbonate skeletons. *Geobiology* 8:256-277.

Maloof, A.C., Ramezani, J., Bowring, S.A., Fike, D.A., **Porter, S. M.**, and M. Mazouad. 2010. Constraints on early Cambrian carbon cycling from the duration of the Nemakit-Daldynian-Tommotian boundary $\delta^{13}C$ shift, Morocco. *Geology* 38: 623-626.

Halverson, G.P., Hurtgen, M.T., **Porter, S.M.**, and Collins, A.S. 2010. Biogeochemical Events Across the Precambrian-Cambrian Boundary. Pp. 351-365 in: Gaucher, C., Sial, A., Halverson, G. P., and H. Frimmel (eds.). *Neoproterozoic-Cambrian Tectonics, Global Change and Evolution: A Focus on Southwestern Gondwana.* Elsevier, Developments in Precambrian Geology Series.

Johnston, D.T., Poulton, S.W., Dehler, C.M., **Porter, S.M.**, Husson, J., Canfield, D.E., and Knoll, A.H. 2010. An emerging picture of Neoproterozoic ocean chemistry: Insights from the Chuar Group, Grand Canyon, USA. *Earth and Planetary Science Letters* 290: 64-73.

°Vendrasco, M.J., **Porter, S.M**., Kouchinsky, A.G., Li, G., and Fernandez, C.Z. 2010. New data on molluscs and their shell microstructures from the middle Cambrian Gowers Formation, Australia. *Palaeontology* 53: 97-135.

°Vendrasco, M.J., **Porter, S.M**., Kouchinsky, A.G., Li, G., and Fernandez, C.Z. 2010. Shell microstructures in early mollusks. *Festivus* 42: 43-54.

°Vendrasco, M. J. Li, G., **Porter, S. M.**, and Fernandez, C.Z. 2009. New data on the enigmatic *Ocruranus-Eohalobia* group of early Cambrian small skeletal fossils. *Palaeontology* 52: 1373-1396.

*Nagy, R.M., **Porter, S.M**., Dehler, C.M., and Shen, Y. 2009. Biotic turnover driven by eutrophication before the Sturtian low-latitude glaciation. *Nature Geoscience* 2: 414-417.

Porter, S.M. 2008. Skeletal microstructure indicates halkieriids and chancelloriids are closely related. *Palaeontology* 51: 865-879.

Dehler, C.M., **Porter, S.M**., Sprinkel, D.A., DeGrey, L.D. 2007. The Neoproterozoic Uinta Mountain Group revisited: a synthesis of recent work on the Red Pine Shale and undivided clastic strata, northeastern Utah. Pp. 151-166 in Link, P.K., & Lewis, R. (eds.): *Proterozoic Geology of Western North America and Siberia*. SEPM Special Publication 86.

Porter, S.M. 2007. Seawater chemistry and early carbonate biomineralization. *Science* 316: 1302.

Porter, S.M. 2006. The early fossil record of heterotrophic protists. In Xiao, S. and Kaufman, A.J. (eds.): *Neoproterozoic Geobiology*. Topics in Geobiology Series: 1-21.

*Nagy, R.M., and **Porter, S.M.** 2005. Paleontology of the Neoproterozoic Uinta Mountain Group. Dehler, C.M., Pederson, J.L., Sprinkel, D.A., and Kowallis, B.J. (eds.) *Uinta Mountain Geology*. Utah Geological Association Publication 33.

Dehler, C.M, Sprinkel, D.A. and **Porter, S.M.** 2005. Neoproterozoic Uinta Mountain Group of northeastern Utah: pre-Sturtian geographic, tectonic, and biologic evolution. *Geological Society of America Field Guide* 6.

Porter, S.M. 2004. Halkieriids in Middle Cambrian phosphatic limestones from Australia. *Journal of Paleontology* 78: 574-590.

Porter, S.M. 2004. Closing the 'phosphatization window': implications for interpreting the record of small shelly fossils. *Palaios* 19: 178-183.

Porter, S.M., A. H. Knoll, and Affaton, P. 2004. Chemostratigraphy of a Neoproterozoic 'cap' carbonate from the Volta Basin, West Africa. *Precambrian Research* 130: 99-112.

Porter, S.M. 2004. The fossil record of early eukaryotic diversification. *Paleontological Society Papers* 10: 35-50.

Porter, S.M., R. Meisterfeld, and Knoll, A.H. 2003. Vase-shaped microfossils from the Neoproterozoic Chuar Group, Grand Canyon: a classification guided by modern testate amoebae. *Journal of Paleontology* 77: 409-429.

Porter, S.M., and Knoll, A.H. 2000. Neoproterozoic testate amoebae: evidence from vase-shaped microfossils in the Chuar Group, Grand Canyon. *Paleobiology* 26: 360-385.

Karlstrom, K.E., Bowring, S.A., Dehler, C.M., Knoll, A.H., **Porter**, **S.M.,** Des Marais, D.J., Weil, A.B., Sharp, Z.D., Geissman, J.W., Elrick, M.B., Timmons, J.M., Crossey, L.J., and Davidek, K.L. 2000. Chuar Group of the Grand Canyon: record of breakup of Rodinia, associated change in the global carbon cycle, and ecosystem expansion by 740 Ma. *Geology* 28: 619-622.

Dehler, C., **Porter, S.**, and Karlstrom, K. 1999. Grand Canyon Supergroup. *Boatman's Quarterly Review* 12: 31-35.