# CURRICULUM VITAE: PAUL MYROW

Department of Geology
The Colorado College
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## **EDUCATION**

<u>Doctor of Philosophy</u>, Earth Science, 1987, Memorial University of Newfoundland, St. John's, Newfoundland.

Thesis Title: Sedimentology and depositional history of the Chapel Island Formation [late Precambrian—Early Cambrian], southeast Newfoundland.

Master of Science, Geology, 1983, The University of Vermont, Burlington, Vermont.

Thesis Title: Paleoenvironmental analysis of the Cheshire Formation, west central Vermont

Bachelor of Science, Geology, 1980, Colgate University, Hamilton, New York.

## WORK EXPERIENCE

- 9/00-Present Full Professor of Geology, The Colorado College. Responsible for the following courses: Sedimentation and Stratigraphy, Invertebrate Paleontology, Historical Geology, Sedimentary Petrology, Historical Geology, Introductory Geology, Oceanography, Natural Science, Regional Geology, Marine Geology.
- 9/09-12/09 Visiting Professor of Geology, California Institute of Technology.
- 1/10-5/10 Visiting Crosby Lecturer, Massachusetts Institute of Technology
- 9/93-9/00 Associate Professor of Geology,
- 9/87-9/93 Assistant Professor of Geology, The Colorado College.
- 3/91 Crosby Lecturer, Massachusetts Institute of Technology.

### **GRANTS**

- National Aeronautics and Space Administration, \$29,671, 3 Year Award: "Catching the 'Second Wave' of the Ediacara Biota: Assessing the Role of Environment, Ecology and Diagenesis," 2014-2017.
- National Science Foundation, EAR–Geomorphology, Principal Investigator, \$159,070, 3 Year Award: "Collaborative research: Laboratory and numerical experiments on the response of wave ripples to changes in oscillatory flow," 2012–2015.
- National Science Foundation, Geology and Paleontology Division, Principal Investigator, \$59,985, 3 Year Award: "Collaborative research: Testing Himalayan tectonic and erosional history via chronostratigraphic correlation between the Lesser Himalaya and Indian craton," 2011–2014.
- National Science Foundation, R.U.I. Geology and Paleontology Division, Principal Investigator, \$121,396, 3 Year Award: "Collaborative Research: Stratigraphic test of the tectonic assembly of equatorial peri-Gondwanaland: A Himalayan perspective", 2006–2009.
- National Science Foundation, R.U.I. Geology and Paleontology Division, Principal Investigator, \$53,987, 2 Year Award: "Collaborative Research: High-Density Combined Flows and Bedforms", 2003–2005.
- National Science Foundation, R.U.I. Paleontology/Stratigraphy Research Grant, Principal Investigator, \$114,987, 3 Year Award: "Collaborative Research: The Neoproterozoic and Cambrian of the Tethyan Himalaya: a Test of Core Gondwanan Construction", 2000–2003.
- [Informal Co-Investigator] National Science Foundation, Structure and Tectonics Research Grant, \$280,260, 3 Year Award: "Structure and Sedimentology of the Beardmore Group, Antarctica: Latest Neoproterozoic to early Paleozoic Tectonic Evolution of the East Antarctic Margin", PI Dr. John Goodge, SMU, 1998–2001.
- National Science Foundation, R.U.I. Paleontology/Stratigraphy Research Grant, Principal Investigator, \$71,200, 3 Year Award: "Collaborative Research: Integrated Stratigraphic Study of Cambrian—Ordovician Inner Shelf Facies of the Western United States", 1999-2002.
- National Science Foundation, R.U.I. Paleontology/Stratigraphy Research Grant, Principal Investigator, \$90,800, 2 Year Award (extended to 3 yrs): "Integrated Stratigraphic and Sedimentological Analysis of the Cambro-Ordovician Inner Shelf, Colorado", 1995-1998.
- American Chemical Society Petroleum Research Fund, \$24,450 two-year award: "Cambrian Tidal Sand Waves: Geometry, Sediment Dynamics and Reservoir Potential", 1994–1996.
- Union Pacific Resources Company, \$2,100: "Cambrian Tidal Sandwaves", 1994.
- American Chemical Society Petroleum Research Fund, \$18,000 two-year award: "Sedimentology of the Lower Paleozoic of Central Colorado", 1990–1993.

National Science Foundation, E.A.R., Paleontology/Stratigraphy Research Grant, Co-Investigator, \$90,000, 3 Year Award: "Basin Evolution and Biostratigraphy of the Lower and Middle Cambrian, Avalonian North America". Principal Investigator Ed Landing, New York State Paleontologist, New York State Survey, 1989-1991.

## **AWARDS**

Best Paper Prize, 2015, "Himalayan Cambrian brachiopods", *Papers in Palaenotology*, Systematic monograph series of UK Palaeontological Association.

Verner Z. Reed Professor of Natural Sciences, Colorado College, 2010–2013

Geological Society of America Fellow, 2010.

Geological Society of America Bulletin, Exceptional Reviewer, 2008.

The John D. and Catherine T. MacAurthur Professorship at Colorado College, 1990-1992. Position includes release time, summer salary, equipment purchases, travel expenses, publication costs, and research assistance.

Best Paper Award for the Journal of Paleontology, 1989, presented by the Paleontological Society Council for "The Placentian Series: appearance of the oldest skeletalized faunas in southeastern Newfoundland" by Landing, E., Myrow, P., Benus, A., and Narbonne, G.

#### **INVITED LECTURES**

- "Storm-Deposited Bedforms and Stratification: Controversies and Insights from the Laboratory and Field", Exxon Research Production, January 10, 2017.
- "Storm deposition: Controversies and insights from the laboratories, oceans, and field", Lafayette College, January 29, 2016.
- "Timing and nature of late-stage Gondwanan assembly and peri-Gondwanan tectonic activity: Records from multiple continents", Yale University, January 20, 2016.
- "The dynamic early Paleozoic world of Colorado: Faunas, environments, tectonics, and large earthquakes", Denver Museum of Nature and Science, August 18, 2015.
- "Integrated stratigraphic, geochronologic, and geochemical model for Neogene tectonics of the Himalaya: Implications for the marine isotopic record", University of Pennsylvania, March 27, 2015.
- "The Geologic Record of Storms: Overview and case study of the Minturn Formation, Central Colorado", Colorado State University, February 24, 2014.

- "Assembly of Gondwanaland: an Antarctic and Himalayan Perspective", University of Barcelona, January 30, 2014
- "The Geologic Record of Storms", Woods Hole Oceanographic Institute, January 14, 2014.
- "Signatures of the amalgamation of Gondwanaland: Antarctica and Himalaya", Jodhpur University, India, December 5, 2012.
- "Depositional, Geochronological, and Tectonic Signatures of the Amalgamation of Gondwanaland: A Himalayan and Antarctic Perspective", Colgate University, November 27, 2012.
- "Onset of uplift of the Lesser Himalaya: Depositional and Erosional History of the Northern Indian Margin", Washington University of St. Louis, March 1, 2012.
- "Depositional Dynamics of a Highstand Prodeltaic System in the Pennsylvanian Minturn Formation of the Central Colorado Basin: Deposits of Wave-Influenced Turbidity Currents", Rocky Mountain Association of Geologists and SEPM, March 29, 2011.
- "Depositional, geochronological, and tectonic record of the Cambrian Ross Orogeny, Antarctica", Korea Polar Research Institute, Incheon, Korea, March 14, 2011.
- "Lower Paleozoic depositional history and tectonics of the Himalaya: Implications for Neogene uplift and marine isotopic records", Memorial University of Newfoundland, St. John's, Newfoundland, October 1, 2010.
- "Stratigraphy and geochronology of lower Paleozoic rocks of the Himalaya: implications for Neogene uplift and marine isotopic records", Australia National University, Canberra, Australia, August 12, 2010.
- "Sedimentology, Paleontology, and Geochronology of Cambrian rocks of the Himalaya: India to Bhutan", Smith College, North Hampton, MA, April 22, 2010.
- "Using sedimentary successions and geochronologic data to constrain Himalaya tectonics, uplift, and erosion: Beyond the lithotectonic concept", Harvard University, Cambridge, MA, March 1, 2010.
- "Lithotectonic zones of the Himalaya: Use of stratigraphic and geochronologic data to constrain Neogene uplift history and ocean geochemistry", Massachusetts Institute of Technology, Cambridge, MA, February 26, 2010.
- "Unusual depositional dynamics of cyclic Cambrian deposits: Biomere trilobite extinctions and the demise of the inner detrital belt of North America", University of California, Riverside, Riverside, CA, December 8, 2009.
- "Early uplift of the Ross orogen, Antarctica: stratigraphy and detrital zircon geochronology", California Institute of Technology, Pasadena, CA, November 17, 2009.

- "The northern margin of East Gondwanaland: Stratigraphic and geochronologic constraints on Himalayan reconstructions", University of California, Los Angeles, CA, November 4, 2009.
- "Integrated stratigraphic and geochronologic approach to understanding the geologic history of the Himalaya: Limitations of the lithotectonic concept", California Institute of Technology, Pasadena, CA, October 4, 2009.
- "The Cambrian-Ordovician boundary interval from Montana to Texas: cyclic sedimentation, biomere trilobite extinctions, and the demise of the inner detrital belt". University of Montana, Winston-Thompson Symposium, Missoula, MT, September 11, 2009.
- "Early tectonics of the Himalaya". Stanford University, Stanford, CA, October 24, 2008
- "Hyperpycnal flow deposits of the Pennsylvanian Minturn Formation, Central Colorado Basin". Stanford University, Stanford, CA, October 23, 2008
- "Cambrian of the Himalaya: Controversies and Gondwanan Reconstructions". Pomona College, Pomona, CA, March 26, 2008.
- "Early Paleozoic Orogenic and Sedimentary History of the Himalayas". California Institute of Technology, Pasadena, CA, March 14, 2008.
- "The Sedimentary Signal of Gondwanan Assembly". University of Texas, Austin, TX, February 18, 2008.
- "Building Gondwanaland: the record of Cambrian mountain building in Antarctica and the Himalayas". University of California, Davis, CA, April 14, 2006.
- "A controversial early Paleozoic tectonic event in the Himalayas: record from northern India". University of Minnesota, Duluth, MN, March 9, 2006.
- "The geologic record of storm events". University of Minnesota, Duluth, MN, March 10, 2006.
- "The record of ancient storms: an example from the Pennsylvanian Fountain Formation of central Colorado". University of Northern Colorado, Greeley, CO, November 11, 2005.
- "Gondwanan Assemblage: Views from Antarctica and the Himalayas: An integrated stratigraphic, paleontologic, and geochronologic approach". Yale University, New Haven, CT, September 29, 2004.
- "A fault-bounded depositional basin in central Colorado", Colorado Scientific Society, Golden, CO, September 16, 2004.
- "Paleogeography and high-resolution stratigraphy of Cambrian and Ordovician strata of the Rocky Mountain region". Rocky Mountain Section, SEPM, Denver, CO, January 27, 2004.
- "Early Paleozoic Paleogeography of the Rocky Mountain Region: Myths concerning the birth of the Transcontinental Arch". University of Missouri, Columbia, March 21, 2003.

- "Fallen Arches: Myths Concerning the Early Paleozoic Paleogeography of the Rocky Mountain Region". Arizona State University, November 13, 2002.
- "Neoproterozoic to Cambrian history of the Transantarctics: Rodinian Breakup to Gondwanan Assembly". University of New Mexico, March 26, 2002.
- "Cambrian of Antarctica: Depositional Record of Gondwanan Assembly". Colgate University, February 15, 2001.
- "Wave-modified turbidites from the Cambrian of Antarctica: Evolving views on storm deposition by Oceanographers and Geologists": Lamont Doherty Earth Observatory, Columbia University, January, 2001.
- "Wave-modified turbidites and the production of combined-flow structures": Massachusetts Institute of Technology, October, 2000.

# **PROFESSIONAL SOCIETIES**

Geological Society of America Grants Committee, 1997-1999. Chairman, 1998-1999.

- Past Corresponding Member of the Working Group on the Cambrian Ordovician Boundary, International Union of Geological Sciences and International Geological Correlation Project.
- Past Corresponding Member of the Working Group on the Precambrian Cambrian Boundary, International Union of Geological Sciences and International Geological Correlation Project.
- Past Member of the Working Group on the International Union of Geological Sciences and International Geological Correlation Project #303: Late Precambrian Early Cambrian Event Stratigraphy.
- Past corresponding Member of the International Union of Geological Sciences Working Group on the Terminal Proterozoic System.
- Past corresponding Member of the International Union of Geological Sciences and International Geological Correlation Project #320: Neoproterozoic Events and Resources.

Member, Society of Economic Paleontologists and Mineralogists.

Member, Geological Society of America

Member, International Association of Sedimentologists

### SENIOR THESES/PROJECTS

- Anne Hakim: Sedimentology, Biostratigraphy, Chemostratigraphy, and Sequence Stratigraphy of Middle Ordovician Strata, Inner Mongolia, China: 2015 [Honors Thesis]
- Austin Miller: A Geochemical Investigation of Oxygenation in the Early Ediacaran Oceans at the Type Section of the Sheepbed Formation, Mackenzie Mountains, Northwest Territories, Canada: 2015 [Honors Thesis]
- Lauren Williamson: Paleocurrent analysis of the Nanushuk Formation, North Slope, Alaska
- Lauren Dangles: Triassic-Jurassic strata of the Colorado Springs region: 2014
- Caleb Birchard: Chemostratigraphy of an Early Ordovician, basal Stairsian Stage, biomere extinction event: 2013 [Honors Thesis]
- Devon Cole: Sedimentology, Stratigraphy, and Geochemistry of Latest Devonian strata: 2013 [Honors Thesis]
- Zachary Snider: Cambrian—Ordovician stratigraphy and paleogeography of the western margin of the North China Block: 2013 [Honors Thesis]
- Anne Hanson: Sedimentological, Stratigraphic, and Chemostratigraphic Analysis of Upper Devonian Rocks in Western Colorado: 2012 [Honors Thesis]
- Thomas Ashley: Temporal evolution of sand ripples in response to changes in oscillatory flow conditions: 2012 [Honors Thesis]
- Julian Springer: Sedimentology, Stratigraphy and Geochemistry in the Snowy Range Formation: 2011 [Honors Thesis]
- Anna Phelps: Sedimentology, magnetic susceptibility, and chemostratigraphy of the Chaffee Group, Cement Creek, Colorado: 2010 [Honors Thesis]
- Timothy Gibson: Sedimentology, depositional history and detrital zircon geochronology of the Lower Devonian Tsakhir Formation, Shine Jinst Region, Mongolia: 2010 [Honors Thesis]
- Andrew Nelson: The progression of sedimentological facies and their control of biogeochemical cycling in the bioluminescent bays of Vieques, Puerto Rico: 2007 [Honors Thesis]
- Karri Sicard: Sedimentology, biostratigraphy, and chemostratigraphy of latest Devonian deposits: Rhenish Slate Mountains of west-central Germany: 2007 [Honors Thesis]
- Justin Strauss: Sedimentology, biostratigraphy, and chemostratigraphy of the Chaffee Group: 2006 [Honors Thesis]
- Jessica Creveling, Chemostratigrahic record of the Late Devonian, and ALFIE, a new positive isotope excursion of the Late Fammenian: 2006 [Honors Thesis]

- Rebecca Zentmyer: Origin and significance of travertine terraces from south-central Tibet: 2006 [Honors Thesis]
- Claire Lukens: Wave-modified turbidites: Hyperpycnal flow deposits in the Minturn Formation, Central Colorado: 2004 [Honors Thesis]
- Kiel Smith: Upper Cambrian and Lower Ordovician of West Texas and Southern New Mexico: Isotopic and Stratigraphic Correlations: 2004 [Honors Thesis]
- Rafaello Sacerdoti: Sedimentological and isotopic analysis of the Bliss Formation and lower El Paso Group: southern Franklin Mountains, El Paso, Texas: 2003 [Honors Thesis]
- Kathryn Snell: Depositional history of the Cambrian Karsha and Kurgiakh formations, northern India: 2002 [Honors Thesis]
- Lauren Tice: Sedimentology and biostratigraphy of Cambrian—Ordovician deposits: northern Wyoming and southern Montana: 2002 [Honors Thesis]
- Karl Thompson: Depositional history of the Middle Cambrian Kunzum La Formation, India Himalayas: 2001 [Honors Thesis]
- Bonny Hawkins: Sedimentology, biostratigraphy, and chemostratigraphy of Cambrian—Ordovician deposits: northern Wyoming and southern Montana: 2001 [Honors Thesis]
- Woody Fischer: Bioimmuration of Ordovician fossils of the Cincinnatian of Ohio: 2000 [Honors Thesis]
- Bryn Clark: Stratigraphy and depositional history of Cambrian and Ordovician rocks of northeast Wyoming: 2000 [Honors Thesis]
- Max Minnerop: Geochronologic analysis of Neoproterozoic rocks of eastern Newfoundland: 2000 [Honors Thesis]
- David Kern: Characteristics of the Denver Basin aquifers, Stonegate Development, Denver, CO: 2000
- Edith Day: Sedimentology, conodont biostratigraphy, and chemostratigraphy of Cambrian—Ordovician deposits, White River Plateau Area, Colorado: 1999 [Honors Thesis]
- Ian Miller: Systematic collection, identification, correlation and leaf margin analysis of the Winthrop Formation Flora: implications for a far-traveled hypothesis for the Winthrop Formation: 1998 [Honors Thesis]
- Kristian Benson: Floral diversity and paleoclimate of the latest Cretaceous and early Tertiary deposits, Denver Basin, Colorado: 1998 [Honors Thesis]

- Tina Brachle: Stratigraphic analysis of Cambrian–Ordovician rocks from the Sawatch Range, Colorado: 1998 [Honors Thesis]
- Jessie Quay: Chemostratigraphic study of Ordovician strata, Front Range of Colorado: 1998.
- Ryan Bennet: Sedimentology, conodont biostratigraphy, and chemostratigraphy of Cambrian—Ordovician deposits, Main Elk Creek, Western Colorado: 1998 [Honors Thesis]
- Kathleen Tehrany: Ancient Maya terracing in northwest Belize: 1998 [Honors Thesis]
- Tobin Hieronymus: Paleoecological information from scavenging features on mammalian fossils from the Turtle Cove Member of the John Day Formation, Oregon: 1997 [Honors Thesis]
- Jason Davis: Identification of siliceous macrofossils of the Manitou Formation: 1997 [Honors Thesis]
- Penny Rieke: A sedimentological and stratigraphic study of ancient tidal sandwaves in the Peerless Formation, Manitou Springs, Colorado: 1996 [Honors Thesis]
- David Rodland: Following C.D. Walcott: stratigraphy and paleontology of the Ordovician Harding Sandstone, Cañon City, Colorado: 1996 [Honors Thesis]
- Jack Denman: Ichnology and Barium chemistry as indicators for paleo-oxygenation, marine productivity, and cyclic stratigraphy in an epeiric basin: 1996 [Honors Thesis]
- Randy Czek: Anatomy of a Cambrian tidal sand wave deposit: 1995 [Honors Thesis]
- Kristin Van Loon: : Sedimentology and stratigraphy of Cambro–Ordovician strata, north-central Colorado: 1993 [Honors Thesis]
- Lisa Greer: Ecological aspects of modern patch reefs on San Salvador Island, Bahamas: 1993, [Honors Thesis]
- Kathryn Riesenberg: Comparative study of biogenic structures from Modern and ancient eolian deposits, on San Salvador Island: 1993.
- Jessica Jackson: Review and analysis of the Denver aquifer near Monument, Colorado: 1992.
- Beth McMillan: Interpretation of paleoenvironments of the lower Paleozoic units of the Front Range, El Paso County, CO: 1991 [Honors Thesis]
- Timothy Donohou: Sedimentology and petrography of Pleistocene marine and eolian deposits, San Salvador Island, Bahamas: 1991 [Honors Thesis]
- Craig Hart: The stratigraphy and petrography of La Loma, Fortuna Basin, southeast Spain: 1990. [Honors Thesis]

- Bradley Evans: Sedimentology and stratigraphy of the Cap Barre through Saint Yvon section, Cloridorm Formation, Gaspe Peninsula, Quebec, Canada: 1990 [Honors Thesis]
- Douglas Cattell: A petrographic study of the diagenesis of the Sue Point fossil reef, San Salvador Island, Bahamas: 1988.
- Constance Hayden: Clay mineralogy and alteration in fluvial facies of the Lebo Member, Fort Union Formation (Paleocene), Custer County, southeastern Montana: 1988.

## REFEREED PUBLICATIONS/GUIDEBOOKS

## In review/in press

- Colleps, C.L., McKenzie, N.R., Stockli, D.F., Hughes, N.C., Singh, B.P., Webb, A.A.G., **Myrow, P.M.**, Planavsky, N.J., and Horton, B.K., *in review*, Thermochronometric constraints on Himalayan thrust belt exhumation, bedrock weathering, and Cenozoic seawater chemistry: Journal of Geology.
- Kåmpf, J., and **Myrow**, **P.M.**, *in press*, Wave-created mud suspensions: A theoretical study: Journal of Sedimentary Research.
- Palacios, T., Jensen, S., Barr, S.M., White, C.E., and **Myrow, P.**, *in press*, Organic-walled microfossils from the Ediacaran–Cambrian boundary stratotype section, Chapel Island Formation and Random Formation, Burin Peninsula, Newfoundland, Canada: Global correlation and significance for the evolution of early complex ecosystems: Geological Magazine.
- Myrow, P.M., Fike, D.A., Malmskog, E., Leslie, S., Zhang, T., Singh, B.P., Chaubey, R.S., and Prasad, S.K., *in review*, Ordovician–Silurian boundary strata of the Indian Himalaya: Record of the latest Ordovician Boda Event: Geological Society of America Bulletin.
- Perron, J.T., **Myrow**, **P.M.**, Hupper, K., Koss, D., and Wickert, T.C., *in review*, Wave ripple defects as indicators of disequilibrium flow conditions: Geology.
- Tang, Q., Hughes, N.C., McKenzie, N.R., Myrow, P.M., and Xiao, S., *in press*, Mesoproterozoic–Neoproterozoic organic-walled microfossils from the lower Madhubani Group of the Ganga Valley, northern India: Palaeontology.

#### Published

- Myrow, P.M., Chen, J., \*Snyder, Z., Leslie, S., Fike, D.A., Fanning, C.M., Yuan, J., and Tang, P., 2017, Depositional history, tectonics, and provenance of the Cambrian–Ordovician succession in the western margin of the North China Block: Reply: Geological Society of America Bulletin, v. 127, doi.org/10.1130/B31835.1.
- Bayet-Goll, A., **Myrow, P.M.**, Aceñolaza, G.F., Moussavi-Harami, R., and Mahboubi, A., 2016, Depositional controls on the ichnology of Paleozoic wave-dominated marine facies: New evidence from the Shirgesht Formation, central Iran: Acta Geologica Sinica (English Edition), v. 90, p. 1801-1840.
- Gilbert, I.R., Hughes, N.C., and **Myrow, P.M.**, 2016, Cambrian microfossils from the Tethyan Himalaya: Journal of Paleontology, v. 90, p. 10-30, DOI: 10.1017/jpa.2015.74.
- **Myrow, P.M.**, 2016, Storms and Storm Deposits, *in* Selley, R.C., Cocks, R., and Pilmer, I., eds., Encyclopedia of Geology: Reference module in Earth systems and environmental Sciences, Elsevier Limited, Oxford, UK, revised entry.
- **Myrow, P.M.**, Hughes, N.C., McKenzie, N.R., Pelgay, P., Thompson, T.J., Haddad, E.E., and Fanning, C.M., 2016, Cambrian–Ordovician orogenesis in Himalyan equatorial Gondwana: Geological Society of America Bulletin, v. 128, p. 1679-1695.
- Pu, J., Bowring, S.A., Ramezani, J., **Myrow, P.**, Raub, T.D., Landing, E., Mills, A., Hodgin, E., and Macdonald, F.A., 2016, Dodging Snowballs: Geochronology of the Gaskiers Glaciation and the first appearance of Ediacaran biota: Geology, v. 44, p. 955-958.
- Sullivan, N.B., Over, D.J., Chuluum, M., and **Myrow, P.M.**, 2016, Subsidence and drowning of a carbonate platform in south-central Mongolia (Gobi Altai Region) during the Late Eifelian

- to early Givetian: A Synthesis of biostratigraphy, magnetic susceptibility and paleoecology: Journal of Asian Earth Sciences, v. 115, p. 204-213.
- Xiao, S., Tang, Q., Hughes, N.C., McKenzie, N.R., and **Myrow, P.M.**, 2016, Biostratigraphic and detrital zircon age constraints on the basement of the Himalayan Foreland Basin: Implications for a Proterozoic link to the Lesser Himalaya and cratonic India: Terra Nov, v. 28, p. 419-426.
- \*Cole, D., **Myrow, P.M.**, Fike, D.A., Johnston, D.T., \*Hakim, A., and Gehrels, G.E., 2015, Uppermost Devonian (Famennian) to Lower Mississippian events of the western U.S.: Stratigraphy, sedimentology, chemostratigraphy, and detrital zircon geochronology: Palaeogeography, Palaeoclimatology, and Palaeoecology, v. 427, p. 1-19.
- Darroch, S.A.F., Sperling, E.A., Boag, T., Racicot, R.A., Mason, S., Morgan, A.S., Tweedt, S., **Myrow, P.M.**, Johnston, D.T., Erwin, D.H., and Laflamme, M., 2015, Low diversity of terminal Ediacaran assemblages supports a 'biotic replacement' model for the end of the Ediacara biota: Proceedings of the Royal Society B: Biological Sciences, 20151003.
- Hughes, N.C., Myrow, P.M., McKenzie, N.R., Banerjee, D.M., and Xiao, S., 2015, Age and implications of the Neoproterozoic Birmania Formation, Rajasthan, India: Precambrian Research, v. 267, p. 164-173.
- **Myrow, P.M.**, Chen, J., \*Snyder, Z., Leslie, S., Fike, D.A., Fanning, C.M., Yuan, J., and Tang, P., 2015, Depositional history, tectonics, and provenance of the Cambrian–Ordovician succession in the western margin of the North China Block: Geological Society of America Bulletin, v. 127, p. 1174-1193, doi:10.1130/B31228.1
- **Myrow, P.M.**, \*Cole, D., Johnston, D.T., Fike, D.A., Sperling, E.A., and \*Hakim, A., 2015, Passive transgression: Remarkable preservation and spatial distribution of uppermost Devonian (Famennian) nearshore marine facies and fauna of western Laurentia: Palaios, v. 30, p. 490-502.
- Myrow, P.M., Hughes, N.C., Derry, L., McKenzie, N.R., Jiang, G., Webb, A.A.G., Banerjee, D.M., Paulsen, T.S., and Singh, B.P., 2015, Neogene Marine Isotopic Evolution and the Erosion of the Lesser Himalaya: Implications for Cenozoic Tectonic History: Earth and Planetary Science Letters, v. 417, p. 142-150.
- Nienhuis, J.H., Perron, J.T., Kao, J.C.T., and **Myrow, P.M.**, 2015, Wavelength selection and symmetry breaking in orbital wave ripples: Journal of Geophysical Research: Earth Surface: v. 119, p. 2239–2257, doi:10.1002/2014JF003158
- Popov, L.E., Holmer, L.E., Hughes, N.C., Pour, M.G., and **Myrow, P.M.**, 2015, Himalayan Cambrian brachiopods: Papers in Palaeontology, p. 1-55.
- Kåmpf, J., and **Myrow, P.M.**, 2014, High-Density Mud Suspensions and Cross-Shelf Transport: On the Mechanism of Gelling Ignition: Journal of Sedimentary Research, v. 84, p. 215-223.
- McKenzie, N.R., Hughes, N.C., **Myrow, P.M.**, Banerjee, D.M., Deb, M., and Planavsky, N.J., 2014, Reply to Comment on "New age constraints on the Proterozoic Aravalli-Delhi successions of central India and their implications": Precambrian Research. v. 246, p. 371-372.
- **Myrow, P.M.**, and Chen, J., 2014, Estimates of large magnitude Late Cambrian earthquakes from seismogenic soft-sediment deformation structures: Central Rocky Mountains: Sedimentology, DOI: 10.1111/sed.12154.
- **Myrow, P.M.**, Ramezani, J., \*Hanson, A.E., Bowring, S., Racki, G., and Rakociński M., 2014, High-precision U–Pb age and duration of the latest Devonian (Famennian) Hangenberg event, and its implications: Terra Nova, v. 26, p. 222-229.
- McKenzie, N.R., Hughes, N., Gill, B.C., and **Myrow, P.M.**, 2014, Plate tectonic influences on Neoproterozoic–Early Paleozoic climate and animal evolution: Geology, v. 42, p. 127-130.

- Buatois, L.A., Narbonne, G.M., Mangano, M.G., Carmona, N.B., and **Myrow, P.M.**, 2014, Ediacaran matground ecology persisted into the earliest Cambrian: Nature Communications, DOI: 10.1038/ncomms4544.
- Tarhan, L.G., Hughes, N.C., **Myrow, P.M.**, Bhargava, O.N., Ahluwalia, A.D., and Kudryavtsev, A.B., 2014, Occurrence and form of the enigmatic tubular body fossil *Shaanxilithes ningqiangensis* from the Precambrian-Cambrian boundary interval in the Lesser Himalaya of India: Palaeontology, v. 57, p. 383-398.
- Hughes, N.C., Sell, B.K., English, L.T., **Myrow, P.M.**, Bhargava, O.N., Tangri, S.K., and Singh, B.P., 2013, Cambrian trace fossils from the Parahio Formation (Tethyan Himalaya) in its type section and elsewhere: Journal of the Paleontological Society of India, v. 58, p. 175-193.
- McKenzie, N.R., Hughes, N., **Myrow, P.M.**, Banerjee, D.M., Deb, M., and Planavsky, N.J., 2013, New age constraints on the Aravalli–Delhi successions of India and their implications: Precambrian Research, v. 238, p. 120-128.
- Siddoway, C., **Myrow, P.M.**, and Diaz, E.F., 2013, Strata, structures and enduring enigmas: a 125<sup>th</sup> anniversary appraisal of Colorado Springs geology: Geological Society of America Annual Meeting Field Guide.
- Myrow, P.M., \*Hanson, A., \*Phelps, A.S., \*Creveling, J.R., \*Strauss, J.V., Fike, D.A., and Ripperdan, R.L., 2013, Latest Devonian (Famennian) global events in western Laurentia: Variations in the carbon isotopic record linked to diagenetic alteration below regionally extensive unconformities: Palaeogeography, Palaeoclimatology, and Palaeoecology, v. 386, p. 194-209.
- \*Gibson, T., **Myrow, P.M.**, MacDonald, F., and Minjin, C., 2013, Sedimentology, depositional history, and detrital zircon geochronology of the Lower Devonian Tsakhir Formation, Shine Jinst, Mongolia: Geological Society of America Bulletin, v. 125, p. 877-893.
- **Myrow, P.M.**, and Narbonne, G., 2012, The dawn of the Paleozoic on the Burin Peninsula: Field Trip Guidebook A2, Geological Association of Canada National Meeting Field Trip, 42 p.
- Lamb, M.P., \*Fischer, W., Raub, T.D., Perron, J.T., and **Myrow, P.M.**, 2012, Giant wave ripples in Snowball Earth cap carbonates: Geology, doi:10.1130/G33093.1.
- **Myrow, P.M.**, Taylor, J.F., Runkel, A.C., and Ripperdan, 2012, Mixed siliciclastic—carbonate upward-deepening cycles of the Upper Cambrian inner detrital belt of Laurentia: Journal of Sedimentary Research, v. 82, p. 216-231.
- McKenzie, R., Hughes, N., **Myrow, P.M.**, Xiao, S., and Sharma, M., 2011, Correlation of Precambrian—Cambrian sedimentary successions across northern India and the utility of isotopic signatures of Himalayan lithotectonic zones: Earth and Planetary Science Letters, v. 312, p. 471-483.
- McKenzie, R., Hughes, N., **Myrow, P.M.**, and Choi, D., 2011, Trilobites and zircons link North China with the eastern Himalaya during the Cambrian: Geology, v. 39, p. 591-594.
- Myrow, P.M., \*Strauss, J.V., \*Creveling, J.R., \*Sicard, K.R., Ripperdan, R., Sandberg, C.A., and Hartenfels, S., 2011, A carbon isotopic and sedimentological record of the latest Devonian (Famennian) from the Western U.S. and Germany: Palaeogeography, Palaeoclimatology, and Palaeoecology, v. 306, p. 147-159.
- Hughes, N.C., **Myrow, P.M.**, McKenzie, N.R., Harper, D.A.T., Bhargava, O.N., Tangri, S.K., Ghalley, K.S., and Fanning, C.M., 2010, Cambrian rocks and faunas of the Wachi La, Black Mountains, Bhutan: Geological Magazine, p. 1-29, doi:10.1017/S0016756810000750.
- Myrow, P.M., Hughes, N.C., Goodge, J.W., Fanning, C.M., Williams, I.S., Peng, S.-C., Bhargava, O.N., Tangri, S.K., Parcha, S.K., and Pogue, K.R., 2010, Extraordinary transport and mixing of sediment across Himalayan central Gondwana during the Cambrian—Ordovician: Geological Society of America Bulletin, v. 122, p. 1660-1670.

- Torsvik, T.H., Paulsen, T.S., Hughes, N.C., **Myrow, P.M.**, and Ganerød, M., 2009, The Tethyan Himalaya: Paleogeographic and tectonic constraints from Ordovician Paleomagnetic data: Journal of Geological Society of London, v. 166, p. 679-687.
- Peng, S.-C., Hughes, N.C., Heim, N.A., Sell, B.K., Zhu, X., **Myrow, P.M.**, and Parcha, S.K., 2009, Cambrian trilobites From the Parahio and Zanskar Valleys, Indian Himalaya: Paleontological Society Memoirs (supplement to the Journal of Paleontology), v. 71, p. 1-95.
- **Myrow, P.M.**, Hughes, N.C., Searle, M.P., Fanning, C.M., Peng, S.-C., and Parcha, S.K., 2009, Stratigraphic correlation of Cambrian–Ordovician deposits along the Himalaya: Implications for the age and nature of rocks in the Mt. Everest region: Geological Society of America Bulletin, v. 121, p. 323-332.
- **Myrow, P.M.**, \*Lukens, C., Lamb, M.P., Houck, K., and \*Strauss, J., 2008, Dynamics of a transgressive prodeltaic system: Implications for geography and climate with a Pennsylvanian intracratonic basin: Journal of Sedimentary Research, v. 78, p. 512-528.
- \*Zentmyer, R., **Myrow, P.M.**, and Newell, D.L., 2008, Travertine deposits from along the South Tibetan Fault System near Nyalam, Tibet: Geological Magazine, v. 145, p. 753-765.
- Lamb, M.P., **Myrow, P.M.**, \*Lukens, C., Houck, K., and \*Strauss, J., 2008, Deposits from wave-influenced turbidity currents: Pennsylvanian Minturn Formation, Colorado: Journal of Sedimentary Research, v. 78, p. 480-498.
- Goodge, J.W., Vervoort, J.D., Fanning, C.M., Brecke, D.M., Farmer, G.L., Williams, I.S., **Myrow, P.M.**, and DePaolo, D.J., 2008, A positive test of East Antarctic–Laurentia juxtaposition within the Rodinia supercontinent: Science, v. 321, p. 235-240.
- Paulsen, T.S., Demosthenous, C.M., **Myrow, P.M.**, Hughes, N.C., and Parcha, S.K., 2007, Paleostrain stratigraphic analysis of calcite twins across the Cambrian—Ordovician unconformity in the Tethyan Himalaya, Spiti and Zanskar valley regions, India: Journal of Asian Earth Sciences, v. 31, p. 44-54.
- **Myrow, P.M.**, \*Snell, K., Hughes, N.C., Paulsen, T.S., Heim, N.A., and Parcha, S.K., 2006, Cambrian depositional history of the Zanskar Valley region of Indian Himalaya: Tectonic implications: Journal of Sedimentary Research. v. 76, p. 364-381.
- **Myrow, P.M.**, \*Thompson, K.R., Hughes, N.C., Paulsen, T.S., Sell, B.K., and Parcha, S.K., 2006, Cambrian stratigraphy and depositional history of the northern Indian Himalayas, Spiti Valley, north-central India: Geological Society of America Bulletin, v.118, p. 491-510.
- Hughes, N.C., Peng, S.-C., Bhargava, O.N., Ahluwalia, A.D., Walia, S. **Myrow, P.M.**, and Parcha, S.K., 2005, Cambrian biostratigraphy of the Tal Group, Lesser Himalaya, India, and early Tsanglangpuan (late early Cambrian) trilobites from the Nigali Dhar syncline: Geological Magazine, v. 142, p. 57-80.
- **Myrow, P.M.**, 2005, Storms and Storm Deposits, *in* Selley, R.C., Cocks, R., and Pilmer, I., eds., Encyclopedia of Geology: Elsevier Limited, Oxford, UK, p. 580-587.
- Goodge, J.W., Williams, I.S., and **Myrow, P.M.**, 2004, Provenance of Neoproterozoic and lower Paleozoic siliciclastic rocks of the central Ross Orogen, Antarctica: Detrital record of rift- to active-margin sedimentation: Geological Society of America Bulletin, v. 116, p. 1253-1279.
- Goodge, J.W., **Myrow, P.M.**, Phillips, D., Fanning, C.M., and Williams, I.S., 2004, Siliciclastic record of rapid denudation in response to convergent-margin orogenesis, Ross Orogen, Antarctica, *in* Bernet, M., and Spiegel, C., eds., Detrital Thermochronology Provenance analysis, exhumation, and landscape evolution in mountain belts: Geological Society of America Special Paper 378, Boulder, Colorado, p. 101-122.
- Myrow, P.M., Lamb, M., \*Lukens, C., Houck, K., Kluth, C., and Parsons, J., 2004, Hyperpycnal wave-modified turbidites of the Pennsylvanian Minturn Formation, north-central Colorado: Geological Society of America Field Trip Guide, 28 p.

- **Myrow, P.M.**, \*Tice, L.P., \*Archuleta, B., \*Clark, B., Taylor, J.F., and Ripperdan, R.L., 2004, Flat-pebble conglomerate: its multiple origins and relationship to meter-scale depositional cycles: Sedimentology, v. 51, p. 1-24.
- Taylor, J.F., Myrow, P.M., Ripperdan, R.L., Loch, J.D., and Ethington, R.L., 2004, Paleoceanographic events and faunal crises recorded in the Upper Cambrian and Lower Ordovician of west Texas and southern New Mexico: Geological Society of America Field Trip Guide 5, p. 169-185.
- **Myrow, P.M.**, 2003, Gutters and Gutter Casts, *in* Middleton, G.V., ed., Encyclopedia of Sediments and Sedimentary Rocks: Kluwer Academic Publishers, p. 353-354.
- **Myrow, P.M.**, 2003, Storm Deposits, *in* Middleton, G.V., ed., Encyclopedia of Sediments and Sedimentary Rocks: Kluwer Academic Publishers, 686-687.
- **Myrow, P.M.**, 2003, Colors of Sedimentary Rocks, *in* Middleton, G.V., ed., Encyclopedia of Sediments and Sedimentary Rocks: Kluwer Academic Publishers, p. 159-161.
- Myrow, P.M., Hughes, N.C., Paulsen, T., Williams, I., Parcha, S.K., \*Thompson, K.R., Bowring, S.A., Peng, S.-C., and Ahluwalia, A.D., 2003, Integrated tectonostratigraphic analysis of the Himalaya and implications for its tectonic reconstruction. Earth and Planetary Science Letters, v. 212, p. 433-441.
- **Myrow, P.**, Taylor, J., Miller, J., Ethington, R., Ripperdan, R., and Allen, J., 2003, Fallen arches: Dispelling myths concerning Cambrian and Ordovician paleogeography of the Rocky Mountain region: Geological Society of America Bulletin, v. 115, p. 695-713.
- Droser, M.L., Jensen, S., Gehling, J.G., **Myrow, P.M.**, and Narbonne, G.M., 2002. Lowermost Cambrian ichnofabrics from the Chapel Island Formation, Newfoundland: implications for Cambrian substrates: Palaios, v. 17, p. 3-15.
- Goodge, J.W., **Myrow, P.M.**, Williams, I.S., and Bowring, S., 2002, Age and provenance of the Beardmore Group, Antarctica: constraints on Rodinia supercontinent breakup: Journal of Geology, v. 110, p. 393-406.
- **Myrow, P.M.**, Fischer, W., and Goodge, J.W., 2002, Wave-modified turbidites: combined-flow shoreline and shelf deposits, Cambrian, Central Transantarctic Mountains: Journal of Sedimentary Research, v. 72, p. 641-656.
- Myrow, P.M., Pope, M., Goodge, J.W., and Fischer, W, 2002, Depositional history of pre-Devonian strata and timing of Ross Orogenic tectonism in the central Transantarctic Mountains: Geological Society of America Bulletin, v. 114, p. 1070-1088.
- Gehling, J.G., Jensen, S., Droser, M.L., **Myrow, P.M.**, and Narbonne, G.M., 2001, Burrowing below the basal Cambrian GSSP, Fortune Head, Newfoundland: Geological Magazine, v. 138, p. 213-218.
- Coniglio, M., **Myrow**, **P.M.**, and White, T.S., 2000, Stable carbon and oxygen isotopic evidence of Cretaceous sea level fluctuations recorded in septarian concretions from Pueblo, Colorado: Journal of Sedimentary Research, v. 70, p. 700-714.
- **Myrow, P.M.**, and Grotzinger, J.P., 2000, Chemostratigraphic proxy records: forward modeling the effects of unconformities, variable sediment accumulation rates, and sampling-interval bias, *in* Grotzinger, J. and James, N., eds., Carbonate Sedimentation and Diagenesis in the Evolving Precambrian World: SEPM Special Publication 67, p. 43-55.
- **Myrow, P.M.**, and Kaufman, A.J., 1999, A cap carbonate above Varanger age glacials in Newfoundland: Journal of Sedimentary Research, v. 69, p. 784-793.
- **Myrow, P.M.**, Taylor, J., Miller, J., Ethington, R., Ripperdan, R., and \*Brachle, C., 1999, Stratigraphy, Sedimentology, and Paleontology of the Cambrian-Ordovician of Colorado, *in* Lageson, D.R., Lester, A., and Trudgill, B., eds., Colorado and Adjacent Areas: Geological Society of America Field Guide, Boulder, CO, p. 157-176.

- **Myrow, P.M.**, Taylor, J., Miller, J., Ethington, R., Ripperdan, R., \*Brachle, C., and Owen M., 1999, Stratigraphic synthesis of the Cambrian–Ordovician rocks of Colorado: Acta Universitis Carolinae Geologica, v. 43, p. 9-12.
- Rigby, J.K., and **Myrow, P.M.**, 1999, Lower Ordovician Sponges from the Manitou Formation in Central Colorado: Brigham Young University Press, v. 44, p. 135-153.
- **Myrow, P.M.**, 1998, Transgressive Stratigraphy and Depositional Framework of Cambrian Tidal Dune Deposits, Peerless Formation, Central Colorado, U.S.A. *in* Alexander, C., Davis, R., and Henry, J., eds., Tidalites: Processes and Products, SEPM Special Publication No. 61, p. 143-154.
- **Myrow, P.M.,** and Southard, J.B., 1996, Tempestite deposition: Journal of Sedimentary Research, v. 66, p. 875-887.
- **Myrow, P.M.**, 1995, <u>Thalassinoides</u> and the enigma of early Paleozoic open-framework burrow systems: Palaios, v. 10, p. 58-74.
- **Myrow, P.M.**, 1995, Neoproterozoic rocks of the Newfoundland Avalon Zone: *in* Knoll, A.H. and Walter, M., eds., Neoproterozoic Stratigraphy and Earth History: Special Issue of Precambrian Research, v. 73, p. 123-136.
- **Myrow, P.M.**, Ethington, R.L., and Miller, J.F., 1995, Cambro–Ordovician proximal shelf deposits of Colorado: Short Papers for the Seventh International Symposium on the Ordovician System, Ordovician Odyssey, v. 77, p 375-379.
- **Myrow, P.M.**, 1994, Pot and gutter casts from the Chapel Island Formation, southeast Newfoundland reply: Journal of Sedimentary Petrology, v. A64, p. 706-709.
- **Myrow, P.M.**, and Hiscott, R.N., 1993, Depositional history and sequence stratigraphy of the potential boundary stratotype section for the Precambrian–Cambrian boundary, Chapel Island Formation, southeast Newfoundland, *in* Geldzetser, H. and Nowlan, G., eds., Event Markers in Earth History: Special Issue of Palaeogeography, Palaeoclimatology, Palaeoecology, v. 104, p. 13-35.
- **Myrow, P.M.**, 1992, Bypass-zone tempestite facies model and proximality trends for an ancient muddy shoreline and shelf: Journal of Sedimentary Petrology, v. 62, p. 99-115.
- **Myrow, P.M.**, 1992, Pot and gutter casts from the Chapel Island Formation, southeast Newfoundland: Journal of Sedimentary Petrology, v. 62, no. 4, p. 992-1007.
- **Myrow, P.M.**, and Landing, E., 1992, Mixed siliciclastic—carbonate deposition in a lower Cambrian oxygen-stratified basin, Chapel Island Formation southeastern Newfoundland: Journal of Sedimentary Petrology, v. 62, p. 455-473.
- Strauss, H., Bengtson, S., **Myrow**, **P.M.**, Vidal, G., 1992, Stable isotope geochemistry and palynology of the late Precambrian to early Cambrian sequence in Newfoundland: Canadian Journal of Earth Sciences, v. 29, p. 1662-1673.
- **Myrow, P.M.**, and Coniglio, M., 1991, Origin and diagenesis of cryptobiontic <u>Frutexites</u> in the Chapel Island Formation (Vendian to lower Cambrian) of southeastern Newfoundland: Palaios, v. 6, p. 572-585.
- **Myrow, P.M.**, and Hiscott, R. N., 1991, Shallow-water gravity-flow deposits, Chapel Island Formation, southeast Newfoundland, Canada: Sedimentology, v. 38, p. 935-959.
- **Myrow, P.M.**, and Southard, J.B., 1991, Combined-flow model for vertical stratification sequences in shallow marine storm-dominated beds: Journal of Sedimentary Petrology, v. 61, p. 202-210.
- Narbonne, G.N., **Myrow, P.M.**, Landing, E. and Anderson, M.M., 1991, A chondrophorine (medusoid hydrozoan) from the basal Cambrian (Placential) of Newfoundland: Journal of Paleontology, v. 65, p. 186-191.

- **Myrow, P.M.**, 1990, A new graph for understanding colors of mudrocks and shales: Journal of Geological Education, v. 38, p. 16-20.
- Grotzinger, J.P., Adams, R.D., McCormick, D.S., and Myrow, P.M., 1989, Sequence stratigraphy, correlations between Wopmay Orogen and Kilohigok Basin, and further investigations of the Bear Creek Group (Goulburn Supergroup), District of Mackenzie, N.W.T.: Current Research, Part C, Journal of Current Research, Geological Survey of Canada, Paper 89-1C, p. 107-119.
- Landing, E., **Myrow**, **P.M.**, Benus, A., and Narbonne, G.M., 1989, The Placentian Series: appearance of the oldest skeletalized faunas in Southeastern Newfoundland: Journal of Paleontology, v. 63, p. 739-769. [Best Paper Award].
- Landing, E., Narbonne, G., and **Myrow, P.M.**, (eds.), 1988, Trace fossils, small shelly fossils, and the Precambrian–Cambrian boundary: New York State Museum Bulletin 463, The University of the State of New York, The State Education Department, Albany, N.Y., 98 p.
- Landing, E., Narbonne, G.M., **Myrow, P.M.**, Benus, A., and Anderson, M. M., 1988, Faunas and depositional environments of the upper Precambrian through Lower Cambrian, Southeastern Newfoundland: New York State Museum Bulletin 463, The University of the State of New York, The State Education Department, Albany, N.Y., p. 18-52.
- Myrow, P.M., Narbonne, G.M., and Hiscott, R.N., 1988, Storm-shelf and tidal deposits of the Chapel Island and Random formations, Burin Peninsula: facies and trace fossils: Geological Association of Canada Annual Meeting, Field Trip Guidebook B6, 108 p.
- Narbonne, G.M. and **Myrow, P.M.**, 1988, Trace fossil biostratigraphy in the Precambrian—Cambrian boundary interval, *in* Landing, E., Narbonne, G., and Myrow, P., eds., Trace Fossils, Small Shelly Fossils and the Precambrian—Cambrian Boundary: New York State Museum Bulletin 463, The University of the State of New York, State Education Department, Albany, N.Y., p. 72-76.
- Narbonne, G., **Myrow, P.M.**, Landing, E. and Anderson, M.M., 1987, A candidate stratotype for the Precambrian—Cambrian southeastern Newfoundland: Canadian Journal of Earth Sciences, v. 24, p. 1277-1293.