

# Curriculum Vitae for Maureen Walczak

**Name** Maureen (Davies) Walczak  
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## Current Positions

2019-present Assistant Professor, Oregon State University  
2018-present Director, NSF Marine Sediment Sampling (MARSSAM) Facility

## Academic qualifications

2015-19 Research Associate, Oregon State University  
2011-15 ARC Super Science Fellow Postdoctoral Scholar, Australian National University  
2011 PhD Oceanography, Oregon State University  
2006 MSc Oceanography, University of Washington  
2004 BSc Oceanography, University of Washington  
2004 BSc Earth and Space Sciences, University of Washington

## Research Areas

Investigating Quaternary and late Neogene changes in meltwater input/runoff, stratification, ocean circulation, and biogeochemical cycling in high-latitude environments, with a particular interest in past warm periods and intervals of glacial instability  
Application of foraminiferal stable isotopes ( $^{18}\text{O}$ ,  $^{13}\text{C}$ ), trace element/Ca ratios (Mg/Ca, Mn/Ca, Sr/Ca) and radiogenic isotopes ( $^{14}\text{C}$ ,  $^{10}\text{Be}$ ,  $^{210}\text{Pb}$ ,  $^{137}\text{Cs}$ ,  $^7\text{Be}$ ,  $^{234}\text{Th}$ ) in marine sediments to paleoenvironmental reconstructions and high-resolution sediment depositional histories  
Geochemical (XRF, Nd, Sr, Pb isotopes) and magnetic (u-channel cryogenic magnetometer, point-source magnetic susceptibility, vibrating sample magnetometer) studies of marine sediment provenance and/or geomagnetism  
Physical properties studies of sediments (SediGraph, Coulter Counter, Geotek MST, X-radiography, CT scan) and the interplay between sedimentation processes and the development of the paleoenvironmental archive

## Publications (\*denotes student mentee)

\*Scroxton, N., **M.H. Walczak**, M. Makowska, J. Zhao, M. Gagan (*accepted*), Historical droughts in Southeast Australia recorded in New South Wales stalagmite. *The Holocene*.

**Walczak, M.H.**, A.C. Mix, E. Cowan, S. Fallon, L.K. Fifield, J.R. Alder, J. Du, B. Haley, T. Hobern, J. Padman, S. Praetorius, A. Schmittner, J. Stoner, S. Zellers (**2020**), Phasing of millennial-scale climate variability in the Pacific and Atlantic Oceans. *Science*. [doi:10.1126/science.aba7076](https://doi.org/10.1126/science.aba7076)

Jennings, A.E., J.T. Andrews, B. Reilly, **M.H. Walczak**, M. Jakobsson, A.C. Mix (**2020**), Modern foraminiferal assemblages in northern Nares Strait, Petermann Fjord and beneath Petermann Ice Tongue, NW Greenland, *Arctic, Antarctic, and Alpine Research*. [doi:10.1080/15230430.2020.1806986](https://doi.org/10.1080/15230430.2020.1806986)

- Zindorf, M., D. Rush, J. Jaeger, A. Mix, M. Penkrot, B. Schnetger, F. R. Sidgwick, H. M. Talbot, C. van der Land, T. Wagner, **M. Walczak**, C. Marz (2020), Reconstructing oxygen deficiency in the glacial Gulf of Alaska: Combining biomarkers and trace metals as paleo-redox proxies. *Chemical Geology*. doi:[10.1016/j.chemgeo.2020.119864](https://doi.org/10.1016/j.chemgeo.2020.119864)
- Cowan, E.A., S.D. Zellers, J. Muller, **M.H. Walczak**, L.L. Worthington, B.E. Caissie, W.A. Clary, J.M. Jaeger, S.P.S. Gulick, J.W. Pratt, A.C. Mix S. Fallon, (2020) Sediment controls dynamic behavior of a Cordilleran Ice Stream at the Last Glacial Maximum, *Nature Communications*. doi:[10.1038/s41467-020-15579-0](https://doi.org/10.1038/s41467-020-15579-0)
- Praetorius, S., A. Mix, A. Condrón, **M. Walczak**, J. McKay, J. Du (2020), The role of Northeast Pacific meltwater events in deglacial climate change. *Science Advances*. doi:[10.1126/sciadv.aay2915](https://doi.org/10.1126/sciadv.aay2915)
- Stuut, J-B. W., P. De Deckker, M. Saavedra-Pellitero, F. Bassinot, A-J. Drury, **M.H. Walczak**, K. Nagashima, M. Murayama (2019), A 5.3-million-year history of monsoonal precipitation in northwestern Australia. *Geophysical Research Letters*. doi:[10.1029/2019GL083035](https://doi.org/10.1029/2019GL083035)
- Reilly, B.T., J.S. Stoner, A.C. Mix, **M.H. Walczak**, A. Jennings, M. Jakobsson, L. Dyke, K. Hogan, L.A. Mayer, S. Fallon, M Cheseby (2019), Holocene break-up and reestablishment of the Petermann Ice Tongue, Northwest Greenland. *Quaternary Science Reviews*. doi:[10.1016/j.quascirev.2019.06.023](https://doi.org/10.1016/j.quascirev.2019.06.023)
- Jennings, A.E., J. Andrews, B. Oliver, **M. Walczak**, A. Mix (2019) Retreat of the Smith Sound Ice Stream in the Early Holocene. *Boreas*. doi:[10.1111/bor.12391](https://doi.org/10.1111/bor.12391)
- Blake-Mizen, K., J.S. Stoner, R.G. Hatfield, A.E. Carlson, C. Xuan, **M.H Walczak**, K.T. Lawrence, J. Channell, I. Bailey (2019), Southern Greenland glaciation and Western Boundary Undercurrent evolution recorded on Eirik Drift during the late Pliocene intensification of Northern Hemisphere glaciation. *Quaternary Science Reviews* doi:[10.1016/j.quascirev.2019.01.015](https://doi.org/10.1016/j.quascirev.2019.01.015)
- Du, J., A. Mix, B. Haley, A.C. Mix, **M.H. Walczak**, S.K. Praetorius (2018), Flushing of the deep Pacific drives deglacial rise of atmospheric CO<sub>2</sub>. *Nature Geoscience*. doi:[10.1038/s41561-018-0205-6](https://doi.org/10.1038/s41561-018-0205-6)
- \*Tynan, S., B.N. Opdyke, A. Dutton, **M.H. Walczak**, S. Fallon (2017), Late Holocene interannual temperature variability inferred from the δ<sup>18</sup>O of *Ostrea angasi* shells. *Australian Journal of Earth Sciences*: doi:[10.1080/08120099.2017.1360939](https://doi.org/10.1080/08120099.2017.1360939)
- Walczak, M.H.**, J.S. Stoner, A.C. Mix, D. Heslop, J. Channell, J. Jaeger, G. Rosen, J. Southon, C. Xuan, (2017), A 17,000 year Paleomagnetic Secular Variation record from the Gulf of Alaska, *Earth and Planetary Science Letters* doi:[10.1016/j.epsl.2017.05.022](https://doi.org/10.1016/j.epsl.2017.05.022)
- Carlson, A., Z. Kilmer, L.B. Ziegler, J.S. Stoner, G.C. Wiles, K. Starr, **M.H. Walczak**, W. Colgan, A.V. Reyes, D.J. Leydet, R.G. Hatfield, (2017), Recent retreat of Columbia Glacier, Alaska: Millennial context, *Geology* doi:[10.1130/G38479.1](https://doi.org/10.1130/G38479.1)
- Montelli, A., S.P. Gulick, L.L. Worthington, A. Mix, **M.H. Davies-Walczak**, S. Zellers, J. Jaeger (2017), Late Quaternary glacial dynamics and sedimentation variability in Bering Trough, Gulf of Alaska. *Geology* 45(1) doi:[10.1130/G38836.1](https://doi.org/10.1130/G38836.1)
- \*Tynan, S., B.N. Opdyke, **M.H. Walczak**, S. Eggins, A. Dutton (2016), Assessment of Mg/Ca in *Saccostrea glomerata* (the Sydney Rock oyster) shell as a potential temperature proxy, *Palaeogeography, Palaeoclimatology, Palaeoecology* doi:[10.1016/j.palaeo.2016.08.009](https://doi.org/10.1016/j.palaeo.2016.08.009)
- Praetorius, S., A. Mix, **M.H. Walczak**, M. Wolhowe, F. Prahel (2015), North Pacific deglacial hypoxic events linked to abrupt ocean warming, *Nature* 527:362-366 doi:[10.1038/nature15753](https://doi.org/10.1038/nature15753)
- Gulick, S.P, J.M. Jaeger, A.C. Mix, H. Asahi, H. Bahlburg, C. Belanger, G.B.B. Berbel, L. Childress, E. Cowan, **M.H. Davies-Walczak**, L. Drab, F. Dottori, M. Forwick, A. Fukumura, S. Ge, S. Gupta, A. Kioka,

- S. Konno, L. LeVay, C. März, K. Matsuzaki, E. McClymont, C. Moy, J. Müller, A. Nakamura, T. Ojima, K. Ridgeway, O. Romero, A. Slagle, J. Stoner, G. St-Onge, I. Suto, L. Worthington, I. Bailey, E. Enkelmann, and R. Reece (2015), Nonlinear feedback between tectonic uplift and glacial erosion constrained by Gulf of Alaska sedimentary record. *Proceedings of the National Academy of Sciences* 112(49):15042-15047 doi:[10.1073/pnas.1512549112](https://doi.org/10.1073/pnas.1512549112)
- Walczak, M.H.**, Mix, A.C., Willse, T., Slagle, A., Stoner, J.S., Jaeger, J., Gulick, S., LeVay, L., Kioka, A., and the IODP Expedition 341 Scientific Party (2015), Correction of non-intrusive drill core physical properties data for variability in recovered sediment volume. *Geophysical Journal International* 202(2):1317-1323 doi:[10.1093/gji/ggv204](https://doi.org/10.1093/gji/ggv204)
- MacPhail, M., K. Fifield, B. Pillans, **M. Davies**, and G. Hope (2015), Lake George revisited: New evidence for the origin and evolution of a large closed lake, Southern Tablelands, NSW, Australia. *Australian Journal of Earth Sciences* 62(7):853-871 doi:[10.1080/08120099.2015.1108365](https://doi.org/10.1080/08120099.2015.1108365)
- Davies-Walczak, M.H.**, A.C. Mix, J.S. Stoner, J. Southon (2014), Late Glacial to Holocene radiocarbon constraints on North Pacific Intermediate Water ventilation and deglacial atmospheric CO<sub>2</sub> sources, *Earth and Planetary Science Letters* 397:57-66 doi:[10.1016/j.epsl.2014.04.004](https://doi.org/10.1016/j.epsl.2014.04.004)
- Jaeger, J.M., S.P.S. Gulick, L.J. LeVay, and **Expedition 341 Scientists** (2014), Proc. IODP, 341: College Station, TX (Integrated Ocean Drilling Program). doi:[10.2204/iodp.proc.341.101.2014](https://doi.org/10.2204/iodp.proc.341.101.2014)
- Expedition 341 Scientists** (2013), Southern Alaska margin: Interactions of tectonics, climate, and sedimentation. IODP Preliminary Report 341. doi:[10.2204/iodp.pr.341.2014](https://doi.org/10.2204/iodp.pr.341.2014)
- Heslop, D., Roberts, A., L. Chiang, **M.H. Davies**, A. Abrazhevich, P. De Deckker (2013), Quantifying magnetite magnetofossil contributions to sedimentary magnetizations, *Earth and Planetary Science Letters*. doi:[10.1016/j.epsl.2013.09.011](https://doi.org/10.1016/j.epsl.2013.09.011)
- Addison, J.A., B.P. Finney, W.E. Dean, **M.H. Davies**, A.C. Mix, and J.M. Jaeger (2012), Productivity maxima and sedimentary d<sup>15</sup>N during the Last Glacial Maximum termination in the Gulf of Alaska, *Paleoceanography* 27(1) doi:[10.1029/2011PA002161](https://doi.org/10.1029/2011PA002161)
- Davies, M.H.**, A.C. Mix, J.S. Stoner, J.A. Addison, J. Southon (2011), The deglacial transition on the SE Alaska Margin; meltwater input, sealevel rise, enhanced productivity, and sedimentary hypoxia, *Paleoceanography* 26(2) doi:[10.1029/2010PA002051](https://doi.org/10.1029/2010PA002051)
- Tesi, T., M. Goni, L. Langone, P. Puig, M. Canals, C. Nittrouer, X. Durrieu de Madron, A. Calafat, A. Palanques, S.E Heussner, **M.H. Davies**, T. Drexler, J. Fabrés (2010), Re-exposure and advection of 14C-depleted organic carbon from old deposits at the upper continental slope, *Global Biogeochemical Cycles*. doi:[10.1029/2009GB003745](https://doi.org/10.1029/2009GB003745)

## Grants

- National Science Foundation Marine Geology and Geophysics: COLLABORATIVE RESEARCH: Early Career Coring Principal Investigator Training Cruise (PI 2020-2021) –\$150k to OSU
- National Science Foundation Marine Geology and Geophysics: NE Pacific Geomagnetic Network Analysis (Co-PI 2019-2020) - \$500k
- Oceangoing Research Vessel Program Award (2019) – Ten days ship time on R/V *Oceanus*
- National Science Foundation Oceanographic Technical Services Marine Sediment Sampling Group (PI 2018-2023) - \$2.5m over 5 years
- National Science Foundation Ocean Instrumentation: Replacement of Special Purpose Van for Shipboard Physical Properties Measurements (PI 2018) –\$80k
- American Australian Association: U.S. to Australia Fellowship (2018) \$30k
- Australian and New Zealand IODP Consortium: Special Analytical Funding (2016) \$20k

- Oceangoing Research Vessel Program Award (2015) – Five days ship time on *R/V Oceanus*
- Australian Research Council IODP Post-Cruise Research Award (2013) \$40k
- Institute for Rock Magnetism Visiting Fellowship (2009)
- Geological Society of America Student Research Grant (2005): Funded MSc Research
- Egtvedt Fellowship (2004-2005): Funded one year of graduate study in Oceanography

## Awards and Professional Recognition

- Jack Dymond Graduate Mentoring Award, Oregon State University 2018
- Nova Expert for the Australian Academy of Sciences
- Marine Geosciences Leadership Symposium Invitee 2013
- Australian Research Council Super Science Fellow 2011-2015
- PAGES (Past Global Changes) 1<sup>st</sup> Annual Young Scientists Meeting Invitee 2009

## Teaching

Spring 2019 GEO308e: *Global Change*, Oregon State University  
 Fall 2018 and 2019 OC201e: *Introduction to Oceanography*, Oregon State University  
 Spring 2016 and 2017 Guest Lecturer in OC460: *Geological Oceanography*, Oregon State University  
 Spring 2017 Guest Convener in GEO699: *Special Topics*  
 2014 Co-Convener for EMSL 3027, *Paleoceanography*, Australian National University  
 August 2013 Guest Lecturer on *Trace Fossils*, Australian National University  
 Winter 2010 Guest Lecturer on *Continental Margin Sedimentation*, Oregon State University  
 Spring 2010 Graduate Teaching Assistant, *Geological Oceanography*, Oregon State University  
 Spring and Fall 2005 Graduate Teaching Assistant, *Introduction to Oceanography*, University of Washington  
 Spring and Fall 2003 Undergraduate Teaching Assistant, *Introduction to Geology and Structural Geology*, University of Washington

## Student Mentees

Alyson Churchill – Advisor, PhD Student, Oregon State University, 2019-  
 Saray Valdez – Advisor, Undergraduate Research Scholar, Oregon State University, 2019-  
 Saray Valdez – Advisor, NSF Research Experiences for Undergraduate Scholar, 2019  
 Alyson Churchill – co-Advisor, NSF Research Experiences for Undergraduates Scholar, 2017  
 Iris Romo – co-Advisor, NSF Research Experiences for Undergraduates Scholar, 2017  
 Angelica Robles – co-Advisor, NSF Research Experiences for Undergraduates Scholar, 2017  
 Matthew Laffin – Advisor, Undergraduate Research Scholar, Oregon State University, 2017  
 Zoe Kilmer – Mentor, Undergraduate Honors Student, Oregon State University, 2017  
 Sarah Tynan – Mentor, PhD Australian National University, 2017  
 Nick Scroxtion – Mentor, PhD Australian National University, 2014  
 Tim Hobern – Advisor, Undergraduate Honours (1<sup>st</sup> class) Australian National University, 2014

## Community Service

Member of OSU Ship Operations Committee (2019-), Graduate Programs Committee (2019-)  
 Reviewer for *Nature Geosciences*, *Nature Communications*, *Earth and Planetary Science Letters*,  
*Geology*, *Geophysical Research Letters*, *Global Biogeochemical Cycles*, *Oceanography*,  
*Paleoceanography and Paleoclimatology*, *G-cubed*, *Palaeogeography Palaeoclimatology*  
*Palaeoecology*, *Minerals*, *Climate of the Past*, *Quaternary International*, *Quaternary Research*,  
*Quaternary Science Reviews*, *Science Advances* as well as the *U.S. National Science Foundation*

Volunteer Judge for the AGU Meeting Outstanding Student Presentation Award  
Session convener Ocean Sciences 2010, 2018; AGU Fall Meeting 2017  
Sea Level Rise Workshop Convener for World Oregon Youth Forum 2018  
ANU Research School of Earth Sciences Department Seminar Convener 2012  
Honours Thesis Examiner for Lyndsay Dean (2011) and Anna Haiblen (2012)  
National Ocean Sciences Bowl Volunteer, University of Washington (Orca Bowl) 2005-2006 and  
Oregon State University (Salmon Bowl) 2007-2011.  
The Freshwater Trust Salmon Watch field trip volunteer, *Water Quality Educator*, 2008-2010

## Training and Skills

- Participant in Early-career Seismic Chief Scientist Training Cruise and Workshop
- CEOAS Science Communication Workshop
- Cox Analytical Itrax Scanning XRF Advanced Operator Training at University of Stockholm
- ACAS School for Accelerator Physics at the Australian Synchrotron
- Geotek Multisensor Core Logger expert user
- U-channel Cryogenic Magnetometer training
- Single-stage Accelerator Mass Spectrometer sample prep and operation experience
- Micropaleontology expertise in planktic and benthic foraminifera
- HF rock and sediment sample digestion
- Geochemical analysis of bulk sediment rare earth (Nd, Pb, and Sr) isotopic ratios
- Arctic Field Training (CH2M Hill) and Polar Bear Safety (Bear Wise Canada) Training
- Deployment of a wide range of marine coring devices and oceanographic equipment
- Field processing of sediment and water samples
- MATLAB, R, ArcGIS
- Radiation Safety and Parasol First Aid certification

## Shipboard Experience

July 2020 **R/V Oceanus** Cascadia high-resolution observations of paleo systems (PI)  
see: <http://paleomag.ceoas.oregonstate.edu/hops/>

July 2019 **R/V Oceanus** Long term drivers of regional wave climate (PI)

Sept 2017 **R/V R.R. Revelle** History of the Astoria Fan (Seismic Chief Scientist training)

June 2017 **R/V Oceanus** An environmental history of the Columbia River (PI)  
see: <http://ceoas.oregonstate.edu/features/sealegs/>

Jan 2016 **R/V T.G. Thompson** California borderlands seismic history and slope stability

July-Sep 2015 **Icebreaker Oden** Past and future stability of Petermann Glacier NE Greenland

June-July 2013 **JOIDES Resolution** Southern AK margin climate, tectonics and sedimentation

Nov 2011 **R/V Southern Surveyor** Holocene climate of the Southern Australian margin

Sept 2009 **R/V T.G. Thompson** Cascadia margin subduction zone

June, Aug and Sept 2009 **R/V Elakha** Oregon coast hypoxic zone

May 2007 **R/V R.R. Revelle** Sumatra margin paleoseismicity

Sept 2005 **R/V T.G. Thompson** Academic Ship Time Cruise, Washington continental shelf

June 2005 **C.C.G.V. Vector** Fraser River delta sedimentation, Vancouver Island margin, Canada

April 2005 **R/V Endeavor** EuroSTRATAFORM cruise, Gulf of Lion, France

Feb 2005 **R/V T.G. Thompson** Academic Ship Time cruise (PI, MS degree), WA cont. shelf

Dec 2004 **R/V T.G. Thompson** PRISM Environmental Monitoring cruise, Puget Sound, WA

Oct 2004 **R/V T.G. Thompson** Academic Ship Time cruise, Puget Sound, WA

Oct 2004 **R/V T.G. Thompson** Academic Ship Time cruise, Bellingham Bay, WA

Mar 2004 **R/V C.A. Barnes** Senior Research Project cruise, Puget Sound WA

Oct 2003 **R/V T.G. Thompson** Academic Ship Time cruise, Puget Sound, WA

Mar 2003 **R/V C.A. Barnes** Junior Research Project cruise, Puget Sound WA  
Sept 2002 **R/V C.A. Barnes** PRISM Environmental Monitoring cruise, Puget Sound WA

## Invited Talks

Western Washington University, 21 & 22 Nov 2019 *Bellingham USA*  
University of Washington, 18 April 2019 *Seattle USA*  
Dalhousie University, 26 & 27 June 2018 *Halifax Canada*  
Macquarie University, May 4 2018 *Sydney Australia*  
Australian National University, May 10 2018 *Canberra Australia*  
Xiamen University, April 2 2018 *Xiamen China*

## Published Meeting Abstracts (*\*denotes student mentee*)

### 2020

Peck, E.K., T. P. Guilderson, R.A. Wheatcroft, **M.H. Walczak**, E. Webb (2020), Using high-resolution chronologies and Bayesian age-depth modeling to elucidate timescales of intertidal accommodation space filling after the 1700 Cascadia Subduction Zone earthquake. Geological Society of America Connects Online, 26-30 October (*virtual oral presentation*).

Stuut, J-B., P. De Deckker, M. Saavedra-Pellitero, F. Bassinot, A. Joy Drury, **M. Walczak**, K. Nagashima (2020), A 5.3-million-year history of monsoonal precipitation in northwestern Australia. GeoUtrecht 24-26 Aug Utrecht (*virtual oral presentation*).

### 2019

**Walczak, M.H.**, \*A Churchill, J.S. Stoner, A. Mix, B.T. Reilly, and S.K. Praetorius (2019), Evidence for persistent benthic hypoxia on the Pacific Northwest continental margin during the Holocene Thermal Maximum. Fall meeting AGU, San Francisco 9-13 Dec.

\*Valdez-Hernandez, S., **M. H. Walczak**, B.T. Reilly, A. Churchill, J.S. Stoner, A.C. Mix, C. Goldfinger (2019), Earthquakes and Megafloods: Extreme events recorded in marine sediments of the Pacific Northwest since the last glacial maximum. Fall meeting AGU, San Francisco 9-13 Dec.

\*Dwyer, D., B. Reilly, **M.H. Walczak**, J.H.Velle, G. St-Onge, and J. Stoner. Developing a geomagnetic network to explore IODP Exp 341 Drill Sites on the South Alaska Margin: Regional synchronization of magnetic, lithologic, and radiocarbon data.

Jennings, A., B. Reilly, J. Andrews, K. Hogan, **M. Walczak**, J. Stoner, A Mix, M. Jakobsson (2019), Modern ice shelf facies and Early Holocene counterparts in Petermann Fjord and Northern Nares Strait. 34<sup>th</sup> IAS Meeting of Sedimentology, Rome 10-13 Sep.

Praetorius, S., A. Mix, A. Condon, **M. Walczak**, J. McKay, J. Du (2019) The role of North Pacific Ocean variability in abrupt deglacial climate events. International Conference on Paleoceanography 13 (ICP13) Sydney 2-6 Sep.

### 2018

Jennings, A.E., B.T. Reilly, J.T. Andrews, **M.H. Walczak** (2018), Sediment and faunal evidence of ice shelves and their disintegration during the early Holocene deglaciation of Nares Strait. Fall Meeting AGU, Washington D.C. 10-14 Dec.

Carlson, A.E., **M.H. Walczak**, B.L. Beard, M.K. Laffin, J.S. Stoner, R.G. Hatfield (2018), Absence of the West Antarctic ice sheet during the last interglaciation. Fall Meeting AGU, Washington D.C. 10-14 Dec.

Penkrot, M.L., J.M. Jaeger, E.A. Cowan, **M.H. Walczak**, A.C. Mix, L. Levay (2018), Tectonic and climate influences on spatial and temporal variations of subglacial erosion: Bering Glacier, Alaska. Fall Meeting AGU, Washington D.C. 10-14 Dec.

- Velle, J.H., G. St-Onge, J.S. Stoner, A. Mix, M. Walczak, M. Forwick (2018), A high-resolution late quaternary paleomagnetic secular variation record from IODP Expedition 341 Drill Site U1419 in the Gulf of Alaska. International Sedimentological Congress 2018, Quebec City 13-17 August.
- Praetorius, S., A. Mix, **M. Walczak**, J. McKay, J. Du, A. Condrón (2018), Did the Missoula megafloods help trigger deglacial cooling events in the northern hemisphere? European Geosciences Union General Assembly 2018, Vienna 8-13 April.
- Velle, J.H., G. St-Onge, J.S. Stoner, A. Mix, **M. Walczak**, M. Forwick (2018), Late Pleistocene and Holocene environmental magnetic record of the northwestern Cordilleran Ice Sheet dynamics based on IODP Expedition 341 drill Site U1419 in the Gulf of Alaska, European Geosciences Union General Assembly 2018, Vienna 8-13 April.
- M.H. Walczak**, A. C. Mix, S. Fallon, S.K. Praetorius, E.A. Cowan, J. Du, T. Hobern, J. Padman, L.K. Fifield, J.S. Stoner, and B.A. Haley (2018), Ice age lessons on the role of the Pacific in abrupt climate change: North Pacific Ocean ventilation, Cordilleran ice sheet variations, and the North Atlantic Heinrich Events, 2018 Ocean Sciences Meeting, Portland 11-16 Feb.
- Du, J., B.A. Haley, A. Mix, **M. Walczak**, S. Praetorius (2018), Flushing of the deep Pacific drives deglacial rise of atmospheric CO<sub>2</sub>, 2018 Ocean Sciences Meeting, Portland 11-16 February.
- \*Romo, I.S., C. Lopes, A. Mix, **M.H Walczak** (2018), Columbia River Flood Events at the End of the Last Ice Age, 2018 Ocean Sciences Meeting, Portland 11-16 Feb.
- Lavoie, N., P. Walczak, **M.H. Walczak**, J.S. Stoner, B. Stillie, B. T. Reilly, S.K. Praetorius, A. Glueder, H.D. Bervid, J. Du, B. Freiberg, T. Pico, I.S. Romo, A. Robles, A. Churchill, C. Rex (2018), Investigating the deglacial through Holocene environmental history of the Oregon/Washington margin: Development of non-destructive (MSCL and CT data) stratigraphy of cores collected during Cruise OC1706B, 2018 Ocean Sciences Meeting, Portland 11-16 Feb.
- \*Robles, A., **M. Walczak**, J. Stoner (2018), The changing sand content on the Columbia Margin over the 20<sup>th</sup> Century: Implications for wave climate, 2018 Ocean Sciences Meeting, Portland 11-16 Feb.

## 2017

- Walczak, M.**, A. Mix, S. Fallon, S. Praetorius, E. Cowan, J. Du, T. Hobern, J. Padman, K. Fifield, J. Stoner, B. Haley (2017), Correspondence between North Pacific Ocean ventilation, Cordilleran Ice Sheet variations, and North Atlantic Heinrich Events, Fall Meeting AGU, New Orleans 11-15 Dec.
- Mix, A., **M. Walczak**, J. Addison, H. Asahi, C. Belanger, E. Cowan, J. Du, S. Fallon, L.K. Fifield, T. Hobern, J. M. Jaeger, B. J.L. Jensen, J. McKay, J. Padman, A. Ross, J.S. Stoner, and S. Zellers. J. Padman, K. Fifield, J. Stoner, B. Haley (2017), Multi-core, multi-constraint chronostratigraphic framework over past 50,000 years places high-resolution Gulf of Alaska ocean-ice-sediment history into a global framework, Fall Meeting AGU, New Orleans 11-15 Dec, New Orleans 11-15 Dec.
- Blake-Mizen, K.R., R.G. Hatfield, **M. Walczak**, J.S. Stoner, C. Xuan, K.T. Lawrence, and I. Bailey (2017), Reconstructing Southern Greenland Ice Sheet history during the Plio-Pleistocene intensification of Northern Hemisphere glaciation: Insights from IODP Site U1307, Fall Meeting AGU, New Orleans 11-15 Dec.
- Reilly, B.T., J.S. Stoner, A.C. Mix, M. Jakobsson, A.E. Jennings, **M. Walczak**, L.M. Dyke, and OD1507 Scientific Party (2017), Past collapse and late Holocene reestablishment of the Petermann Ice Tongue, Northwest Greenland, Fall Meeting AGU, New Orleans 11-15 Dec.
- Stoner, J., B. Reilly, **M. Walczak**, A. Mix, N. Lavoie, J. Velle, G. St-Onge, C. Xuan (2017), Development of a process based paleomagnetic secular variation dating curve for the Northern Hemisphere through the radiocarbon interval, Fall Meeting AGU, New Orleans 11-15 Dec.
- Carlson, A.E., **M. Walczak**, L. Tarasov, D.J. Ullman (2017), Did the Laurentide ice sheet survive through marine isotope stage 9?, PAGES PALSEA2 2017 synthesis, Mexico.
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- LeVay, L.J., O.E. Romero, E.L. McClymont, J. Muller, M.L. Penkrot, J.M. Jaeger, A.C. Mix, **M.H. Walczak**. Late Pleistocene-Holocene phytoplankton productivity in the Gulf of Alaska, IODP Site U1419 (**2017**). North American Micropaleontology Section: Microfossils IV meeting, Houston TX, 5-9 Apr.
- Jennings, A., A. Mix, **M. Walczak**, B. Reilly, J. Stoner, M. Cheseby (**2017**), Modern foraminiferal assemblages in the Petermann Fjord, NW Greenland. 47<sup>th</sup> Annual Arctic Workshop, Buffalo NY, 23-25 Mar.
- Velle, J.H., G. St-Onge, J. Stoner, A. Mix, **M. Walczak**, M. Forwick, A ~56,000 year environmental magnetic record of northwestern Cordilleran Ice Sheet dynamics based on IODP Expedition 341 drill Site U1419 in the Gulf of Alaska (**2017**). Geotop Student Meeting, Montreal QC.

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- Walczak, M.**, A. Mix, S. Fallon, K. Fifield, T. Hobern (**2016**), North Pacific modulation of the global carbon cycle through MIS-2: Insights from IODP Expedition 341. Abstract PP21A-2277, Fall Meeting AGU, San Francisco CA, 12-16 Dec.
- Bervid, H., A. Carlson, I. Hendy, **M. Walczak**, J. Stoner, Deglacial sea surface temperature change and rapid response along the western margin of the northern and southern Cordilleran ice sheet. Abstract PP51B-2305, Fall Meeting AGU, San Francisco CA, 12-16 Dec.,
- Albert, S., B. Reilly, J. Stoner, A. Jennings, A. Mix, M. Jakobsson, L. Dyke, **M. Walczak**, M. Cheseby, J. Weist, and the OD1507 Shipboard Scientific Party (**2016**), An XRF geochemical investigation of the deglaciation of Hall Basin, Nares Strait. Abstract PP13A-2041, Fall Meeting AGU, San Francisco CA, 12-16 Dec.
- Velle, J.H., G. St-Onge, J.S. Stoner, A. Mix, **M. Walczak**, H. Asahi, M. Forwick (**2016**), Ultra-High resolution late Pleistocene paleomagnetic secular variation records from the Gulf of Alaska (IODP Exp. 341 Sites U1418 and U1419). Abstract GP23A-1324, Fall Meeting AGU, San Francisco CA, 12-16 Dec.
- Reilly, B., J. Stoner, A. Mix, M. Jakobsson, A. Jennings, **M. Walczak**, L. Dyke, M. Cheseby, S. Albert, J. Weist, and the OD1507 Shipboard Scientific Party (**2016**), Late Holocene glacial history of Petermann Fjord, Northwest Greenland: Non-destructive CT, XRF, and magnetic results from OD1507 sediment cores. Abstract PP13A-2038, presented at 2016 Fall Meeting AGU, San Francisco CA, 12-16 Dec.
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