

## Maximiliano Paz, Ph.D.

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### EDUCATION

- ❖ **Ph.D. in Geological Sciences** *May 2017 – Dec 2021*  
**Master's project transferred to Ph.D.** *Sep 2015 – April 2017*  
University of Saskatchewan, Saskatoon, Canada  
Average course score: 98/100  
Thesis: Sedimentology, ichnology, and sequence stratigraphy of black shales from the Upper Jurassic-Lower Cretaceous Vaca Muerta Formation, Neuquén Basin, Argentina. Supervisors: Drs. María Gabriela Mángano and Luis A. Buatois
- ❖ **Graduate Professional Skills Certificate** *Sep 2015 – April 2016*  
University of Saskatchewan, Saskatoon, Canada. Non-credit program for graduate students focusing on strengths-based professional skills development
- ❖ **Bachelor's in Geology** *Mar 2010 – Mar 2015*  
Universidad Nacional de Río Negro, General Roca, Argentina  
Bachelor's degree with thesis and specialization in Hydrocarbon Geology, completed on time (five years)  
Average course score: 9.24/10  
Thesis: Relationship between Cu and bitumen in the La Cuprosa prospect, Huincul Ridge, Neuquén. Thesis mark: 10/10. Supervisors: Dra. María Josefina Pons and Lic. Adolfo Giusiano

### WORK EXPERIENCE

#### Research experience

- ❖ **University of Saskatchewan, Saskatoon, Canada**  
- Postdoctoral Fellow (full-time) *Jan 2022 – May 2024*  
Collected, analyzed, and interpreted sedimentologic, trace fossil, and sequence stratigraphic data in outcrops of the Cambrian-Ordovician Los Cabos Formation of Asturias, Spain.  
Developed a database of Silurian and Devonian sedimentologic and trace fossil information worldwide.

#### Teaching experience

- ❖ **Oberlin College, Oberlin, USA**  
- Visiting Assistant Professor (full-time) *Jul 2024 – Jun 2025*  
Developed and taught the following courses: Sedimentology and Stratigraphy (3<sup>rd</sup> year), Geology and Paleontology of Patagonia (1<sup>st</sup> year).

- ❖ **University of Saskatchewan, Saskatoon, Canada**
- Sessional Lecturer (part-time) *Jan 2022 – April 2023*  
Developed and facilitated the fourth-year course “Sequence Stratigraphy” during 2 terms.  
Created and evaluated the exercises related to the course.
  - Student Assistant (part-time) *Jun 2020 – Jul 2020*  
Provided technical support for remote teaching in different Geology courses during the COVID pandemic.
  - Teaching Assistant (part-time) *Sep 2015 – April 2021*  
Facilitated the laboratory exercises of 6 different courses during 13 terms, including: “Sedimentary Environments” (2 terms), “Sequence Stratigraphy” (2 terms), “Sedimentology” (4 terms), “Introduction to Petrology” (1 term), and “Earth Processes” (2 terms). Facilitated and assisted the field course “Depositional systems in space and time: Integrating sedimentologic and ichnologic datasets” (2 terms) held in Asturias, Spain.
- ❖ **CEM 13 High school, Cervantes, Argentina**
- High school teacher (part-time) *May 2014 – Sep 2015*  
Developed and facilitated the “Environmental Education and Camping” workshop.
- ❖ **CEM 62 High school, Cervantes, Argentina**
- High school teacher (part-time) *Mar 2014 – Feb 2015*  
Developed and facilitated the first-year “Environmental Education and Camping” course.
- ❖ **Universidad N. de Rio Negro, General Roca, Argentina**
- Teaching assistant (part-time) *Sep 2013 – Dec 2014*  
Assisted the lectures and supported the students during laboratory time in the “Mineralogy” course.

### Volunteer experience

- ❖ **World University Service of Canada (WUSC), Saskatoon, Canada**
- Treasurer (part-time) *Sep 2017 – Aug 2021*  
WUSC is a non-profit organization that sponsors refugee students for university studies and supports education in refugee camps in Africa and Asia. I supported and organized the settlement of students, providing financial advice to refugee students. I managed the University of Saskatchewan WUSC Chapter’s financial account.
- ❖ **CEM 16 High school, General Roca, Argentina**
- High school Outreach Scientist (part-time) *Mar 2013 – Jun 2013*  
Taught theoretical and practical geological concepts in local modern sediments (Negro River fluvial deposits).
- ❖ **Carlos Ameghino Museum, Cipolletti, Argentina**
- Laboratory Assistant (part-time) *Aug 2012 – Feb 2015*  
Analyzed mineral and rock samples and promoted science within the community.

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### SCIENTIFIC PUBLICATIONS

#### Articles in peer-reviewed journals

- ❖ **Paz, M.**, Mángano, M.G., Buatois, L.A., Campetella, D.M., Sproat, C., Pérez Pueyo, M., Piñuela, L. and García-Ramos, J.C., 2023d. Deep-sea Ordovician lingulide brachiopods and their associated burrows suggest an early colonization of proximal turbidite systems: *Scientific Reports*, v. 13, n. 22753. DOI: 10.1038/s41598-023-49875-8
- ❖ **Paz, M.**, Mángano, M.G., Buatois, L.A., Desjardins, P.R., Minisini, D., González Tomassini, F., Rodríguez, M.N., Pereira, E., and Parada, M.N., 2023c, An unusual oxygen-deficient trace-fossil assemblage from the fine-grained Upper Jurassic-Lower Cretaceous Vaca Muerta Formation of Argentina: implications for the ichnofacies model: *Lethaia*, v. 56, n. 4, p. 1-31. DOI: 10.18261/let.56.4.5
- ❖ **Paz, M.**, Mángano, M.G., Buatois, L.A., Desjardins, P.R., Minisini, D., González Tomassini, F., Rodríguez, M.N., Pereira, E., Fantín, M., Parada, M.N., and Carmona, N.B., 2023b, Environmental controls on trace-fossil distribution in the Upper Jurassic-Lower Cretaceous Vaca Muerta Formation (Argentina): Implications for the analysis of fine-grained depositional systems, Neuquén Basin, Argentina: *Sedimentary Geology*, v. 454, n. 106460. DOI: 10.1016/j.sedgeo.2023.106460
- ❖ **Paz, M.**, Buatois, L.A., Mángano, M.G., Desjardins, P.R., Rodríguez, M.N., Ponce, J.J., Minisini, D., González Tomassini, F., Pereira, E., Carmona, N.B., Fantín, M., and Vallejo, M.D., 2023a, Basin circulation affecting sediment partitioning in a fine-grained carbonate-siliciclastic, subaqueous clinoform: The Upper Jurassic-Lower Cretaceous Vaca Muerta Formation, Neuquén Basin, Argentina: *Journal of the Geological Society*, v. 180, n. jgs2022-055. DOI: 10.1144/jgs2022-055
- ❖ Gougeon, R., Mángano, M.G., Buatois, L.A., Narbonne, G.M., Laing, B.A. and **Paz, M.**, 2023. The Ediacaran–Cambrian Chapel Island Formation of Newfoundland, Canada: evaluating the impact of outcrop quality on trace-fossil data sets at the Cambrian GSSP and less-explored sections: *Canadian Journal of Earth Sciences*, v. 60, p. 897–911. DOI: 10.1139/cjes-2022-0060
- ❖ **Paz, M.**, Mángano, M.G., Buatois, L.A., Desjardins, P.R., Notta, R., González Tomassini, F.G. and Carmona, N.B., 2022b. Ichnology of muddy shallow-water contourites from the Upper Jurassic-Lower Cretaceous Vaca Muerta Formation, Argentina: Implications for trace-fossil models. *Palaios*, v. 37, p. 201–218. DOI: 10.2110/palo.2020.028
- ❖ **Paz, M.**, Buatois, L.A., Mángano, M.G., Desjardins, P.R., Notta, R., González Tomassini, F., Carmona, N.B. and Minisini, D., 2022a, Organic-rich, fine-grained contourites in an epicontinental basin, the Upper Jurassic-Lower Cretaceous Vaca Muerta Formation, Argentina: *Marine and Petroleum Geology*, v. 142, n. 105757. DOI: 10.1016/j.marpetgeo.2022.105757
- ❖ Saleh, F., Qi, C., Buatois, L.A., Mángano, M.G., **Paz, M.**, Vaucher, R., Zheng, Q., Hou, X.G., Gabbott, S.E. and Ma, X., 2022. The Chengjiang Biota inhabited a deltaic environment. *Nature Communications*, v. 13, p. 1–9. DOI: 10.1038/s41467-022-29246-z
- ❖ **Paz, M.**, Ponce, J.J., Mángano, M.G., Buatois, L.A., Carmona, N.B., Wetzel, A., Pereira, E. and Rodriguez, M. 2021. The Vaca Muerta transgression (Upper Jurassic), Neuquén Basin, Argentina: Insights into the evolution and timing of aeolian-marine transitions. *Sedimentology*, v. 68, p. 2732–2764. DOI: 10.1111/sed.12872
- ❖ **Paz, M.**, Ponce, J.J., Buatois, L.A., Mángano, M.G., Carmona, N.B., Pereira, E., and Desjardins, P.R. 2019. Bottomset and foreset sedimentary processes in the mixed carbonate-siliciclastic Upper Jurassic-Lower Cretaceous Vaca Muerta Formation, Picún Leufú Area, Argentina. *Sedimentary Geology*, v. 389, p. 161–185. DOI: 10.1016/j.sedgeo.2019.06.007
- ❖ **Paz, M.**, Pons, M.J., Giusiano, A., Cábana, M.C., Franchini, M., González, E., Impiccini, A. and Rainoldi, A.L. 2016. Relationship between Cu mineralization and bitumen in the La Cuprosa prospect, Huincul Ridge, Neuquén. *Revista de la Asociación Geológica Argentina*, v. 73, p. 563–581.
- ❖ Báez, A.D., **Paz, M.**, Pino, D., González, P.D., Cábana, M.C., Giacosa, R., García, V. and Bechis, F. 2016. Geology of the eastern sector of the Curaco plutonic-volcanic Complex (Upper Triassic), Río Negro. *Revista de la Asociación Geológica Argentina*, v. 73, p. 183–194.

- ❖ **Paz, M.**, Báez, A.D., Pino, D.A., Yamile, S.Y., Garat, L.M., Ponce, J.J. and Tunik, M.A. 2014. Sedimentological analysis of lacustrine and eolian deposits of the Late Cretaceous in the Paso Córdoba area, Neuquén Basin. Revista de la Asociación Geológica Argentina, v. 71, p. 459–471.

#### Articles submitted/under review in peer-reviewed journals

- ❖ Gougeon, R., Mángano, M.G., Buatois, L.A., Narbonne, G.M., Laing, B.A. and **Paz, M.**, submitted, Deciphering environmental and evolutionary controls in animal-sediment interactions at the onset of the Cambrian explosion. *Nature Communications*.
- ❖ Gougeon, R., Mángano, M.G., Buatois, L.A., Narbonne, G.M., Laing, B.A. and **Paz, M.**, in review, Ichnology of the Ediacaran-Cambrian Chapel Island Formation of Newfoundland, Canada: unraveling bioturbation at the onset of the Cambrian Explosion. *Fossils & Strata*.

#### Chapters in peer-reviewed books

- ❖ Minisini, D., Desjardins, P., Otharán, G., **Paz, M.**, Kietzmann, D., Eberli, G., Zavala, C., Simo, T., Macquaker, J.H. and Heine, C. 2020. Sedimentology, depositional model, and implications for reservoir quality. In: Minisini, D., Fantin, M., Lanusse Noguera, I. and Leanza, H.A. (eds.), *Integrated Geology of Unconventionals: The Case of the Vaca Muerta Play, Argentina*. AAPG Memoir, v. 121, p. 201–236.
- ❖ Leanza, H.A., Vennari, V.V., Aguirre-Urreta, M.B., Concheyro, A., Lescano, M., Ivanova, D., Kietzmann, D.A., López-Martínez, R., Martz, P.A., Paolillo, M.A., Guler, V., Pujana, I. and **Paz, M.** 2020. Relevant marine paleobiological markers of the Vaca Muerta Formation. In: Minisini, D., Fantin, M., Lanusse Noguera, I. and Leanza, H.A. (eds.), *Integrated Geology of Unconventionals: The Case of the Vaca Muerta Play, Argentina*. AAPG Memoir, v. 121, p. 61–98.

#### Articles in peer-reviewed conference proceedings

- ❖ **Paz, M.**, Pons, M.J., Giusiano, A., and Franchini, M. 2014. Facies diagenéticas y su vinculación con la circulación de hidrocarburos en la Formación Portezuelo, Dorsal de Huincul, Neuquén. IX Congreso de Exploración y Desarrollo de Hidrocarburos, Programa de estudiantes: p. 63–70, Mendoza, Argentina.

#### Industry technical reports

- ❖ **Paz, M.**, Mángano, M.G., and Buatois, L.A., 2019. Sedimentological and ichnological report of cores APx1001, Rcza.x-1 and SRx1001, Upper Jurassic-Lower Cretaceous Vaca Muerta Formation. Internal report for Total Austral S.A., 15 pp.

#### Abstracts in conference proceedings

- ❖ **Paz, M.**, Mángano, M.G., Buatois, L.A., and Desjardins, P.R., (accepted), Towards a method to estimate mixed layer bioturbation intensity in mud-rich successions. Ichnia Conference, Brazil.
- ❖ **Paz, M.**, Mángano, M.G., Buatois, L.A., Campetella, D.M., Sproat, C., Pérez Pueyo, M., Piñuela, L. and García-Ramos, J.C., (accepted). Deep-sea Upper Ordovician *Lingulichnus verticalis* and their associated body fossils suggest an early colonization of proximal turbidite systems. Ichnia Conference, Brazil.
- ❖ **Paz, M.**, Mángano, M.G., Buatois, L.A., Campetella, D.M., Gougeon, R., Pérez Pueyo, M., Shillito, A., Piñuela, L. and García-Ramos, J.C., (accepted). Ichnofauna of a Cambrian-Ordovician delta complex: the Los Cabos Group of Asturias, Spain. Ichnia Conference, Brazil.

- ❖ Shillito A., and **Paz, M.**, 2023. From the tiny ant to the elephant: engineering impacts of the vertebrate and invertebrate denizens of Mesozoic terrestrial ecosystems. The Palaeontological Association, 67th Annual Meeting, Abstracts, p. 64, Cambridge, UK.
- ❖ **Paz, M.**, Buatois, L.A., Mángano, M.G., Desjardins, P.R., Minisini, D., González Tomassini, F., Rodríguez, M.N., Parada, M.N., Pereira, E., 2023. Muddy contourites and fluid mud flow deposits in the Jurassic-Cretaceous Vaca Muerta Formation: Sedimentologic and ichnologic characteristics to aid in their differentiation. XVIII Reunión Argentina de Sedimentología y IX Congreso Latinoamericano de Sedimentología, La Plata, Argentina.
- ❖ **Paz, M.**, Mángano, M.G., Buatois, L.A., Desjardins, P.R., Rodríguez, M.N., Parada, M.N., González Tomassini, F., Minisini, D., Pereira, E., 2023. Mudstone “cryptobioturbation” in the Jurassic-Cretaceous Vaca Muerta Formation: Using tuffs as taphonomic windows to understand the extent of anoxia. XVIII Reunión Argentina de Sedimentología y IX Congreso Latinoamericano de Sedimentología, La Plata, Argentina.
- ❖ **Paz, M.**, Buatois, L.A., Mángano, M.G., Desjardins, P.R., Rodríguez, M.N., Minisini, D., González Tomassini, F., Pereira, E., Carmona, N.B., Fantin, M., and Vallejo, M.D., 2023. Basin circulation controlling the sedimentologic and ichnologic record of the fine-grained Vaca Muerta Formation (Upper Jurassic-Lower Cretaceous, Argentina). IAS Meeting of Sedimentology, Dubrovnik, Croatia, p. 394.
- ❖ **Paz, M.**, Mángano, M.G., Buatois, L.A., Desjardins, P.R., Minisini, D., González Tomassini, F., Rodríguez, M.N., Pereira, E., Fantin, M., Parada, M.N., and Carmona, N.B., 2023. The role of oxygen and substrate on trace-fossil distribution in the fine-grained Vaca Muerta Formation (Upper Jurassic-Lower Cretaceous, Argentina). IAS Meeting of Sedimentology, Dubrovnik, Croatia, p. 364.
- ❖ Buatois, L. A., Mángano, M. G., **Paz, M.**, Minter, N. J. and Zhou, K. 2023. The ichnologic signature of deep-sea colonization during the Ordovician radiation. Estonian Journal of Earth Sciences, v. 72, p. 122. DOI: 10.3176/earth.2023.08
- ❖ Gougeon, R., Mángano, M.G., Buatois, L.A., Narbonne, G.M., Laing, B.A. and **Paz, M.**, 2023. Ichnofabrics and paleoecologic turnovers from the Ediacaran-Cambrian Chapel Island Formation (Canada), 17th International Ichnofabric Workshop, Faxe, Denmark.
- ❖ Gougeon, R., Mángano, M.G., Buatois, L.A., Narbonne, G.M., Laing, B.A. and **Paz, M.**, 2023. Paleoecologic turnovers in the Ediacaran-Cambrian Chapel Island Formation, Newfoundland (Canada) and the early steps of the Cambrian Explosion. The Palaeontological Association's, 67th Annual Meeting, Abstracts, p. 42, Cambridge, UK.
- ❖ Gougeon, R., Mángano, M.G., Buatois, L.A., Narbonne, G.M., Laing, B.A. and **Paz, M.**, 2023. Outcrop quality and bias in the trace-fossil record: a case study from the Ediacaran-Cambrian Chapel Island Formation of Newfoundland (Canada). V Simposio Latinoamericano de Icnología, Puerto Escondido, Oaxaca, Mexico.
- ❖ **Paz, M.**, Mángano, M.G., Buatois, L.A., Desjardins, P.R., Notta, R., González Tomassini, F., Carmona, N.B., and Minisini, D., 2022. Sedimentology and ichnology of Upper Jurassic to Lower Cretaceous contourites in an unconventional shale reservoir (Vaca Muerta Formation, Argentina). Oceanic Gateways: modern and ancient analogues and their conceptual and economic implications, The Geological Society Meeting, p. 90–91, London, England.
- ❖ **Paz, M.**, Mángano, M.G., Buatois, L.A., Desjardins, P.R., Notta, R., González Tomassini, F.G. and Carmona, N.B., 2022. Trace fossils from organic-rich, contourite drift deposits: the Upper Jurassic-Lower Cretaceous Vaca Muerta Formation from Argentina. 21<sup>st</sup> International Sedimentological Congress, Abstract book, pp. 596, Beijing, China.
- ❖ **Paz, M.**, Buatois, L.A., Mángano, M.G., Desjardins, P.R., González Tomassini, F., Rodríguez, M.N., Ponce, J.J., Minisini, D., Carmona, N.B., and Vallejo, M.D., 2022. Contourites in the Upper Jurassic-Lower Cretaceous Vaca Muerta Formation: Implications for the depositional model and sequence stratigraphy. Actas del XXI Congreso Geológico Argentino, March 2022: p. 963–964, Puerto Madryn, Argentina.

- ❖ Gougeon, R.C., Mángano, M.G., Buatois, L.A., Narbonne, G.M., Laing, B.A. and **Paz, M.**, 2022. Deciphering environmental controls on trace fossil distribution at the Cambrian type section in Newfoundland, Canada. 6th International Palaeontological Conference, p. 354, Khon Kaen, Thailand.
- ❖ Gougeon, R.C., Mángano, M.G., Buatois, L.A., Narbonne, G.M., Laing, B.A. and **Paz, M.**, 2022. Fortune Head and the Cambrian GSSP at Burin Peninsula, Southeastern Newfoundland, Eastern Canada: Revisiting an exceptional ichnologic and stratigraphic succession. GSA Connects 2022, paper n. 260-5, Denver, USA.
- ❖ Gougeon, R.C., Mángano, M.G., Buatois, L.A., Narbonne, G.M., Laing, B.A. and **Paz, M.**, 2022. Development of the sediment mixed layer in deep time: a reading of the Ediacaran-Cambrian boundary type section. Sixth Nereis Park Conference, August 2022, Logonna-Daoulas, France.
- ❖ **Paz, M.**, Mángano, M.G., Buatois, L.A., Desjardins, P.R., Notta, R., González Tomassini, F.G. and Carmona, N.B., 2021. Ichnofabrics from muddy shallow-water bottom current deposits, Upper Jurassic-Lower Cretaceous Vaca Muerta Formation, Argentina. 16th International Ichnofabric Workshop, November 2021, pp. 30-31.
- ❖ Gougeon, R.C., Mángano, M.G., Buatois, L.A., Narbonne, G.M., Laing, B.A. and **Paz, M.**, 2021. Trace fossils and ichnofabrics from the Ediacaran and early Cambrian Chapel Island Formation at the Burin Peninsula, Newfoundland, Canada: A comparison of key sections. 16th International Ichnofabric Workshop, November 2021, p. 24.
- ❖ Gougeon, R.C., Mángano, M.G., Buatois, L.A., Narbonne, G.M., Laing, B.A. and **Paz, M.**, 2021. The Chapel Island Formation and the Cambrian GSSP in Newfoundland, Canada: A view from unexplored sections. Geological Association of Canada Annual Meeting, Nov 1-5, London, Canada.
- ❖ **Paz, M.**, Ponce, J.J., Carmona, N.B., Mángano, M.G. and Buatois, L.A. 2018. The Upper Jurassic Vaca Muerta basal deposits in the Picún Leufú area, Neuquén Basin: Evidence of a rapid transgression. XVI Argentinean Sedimentological Meeting, Nov 26-30, General Roca, Argentina.
- ❖ **Paz, M.**, Mángano, M.G., Buatois, L.A., Desjardins, P., Carmona, N. and Ponce, J.J. 2018. Tracing oxygen fluctuations with ichnology from core data: The case of the Jurassic-Cretaceous Vaca Muerta Formation, Argentina. Canadian Paleontological Conference Proceedings vol. 15, Sept 21-24, Saskatoon, Canada.
- ❖ **Paz, M.**, Mángano, M.G., Buatois, L.A., Carmona, N.B., Desjardins, P., Reijenstein, H. and González Tomassini, F. 2018. Bottom currents in the Jurassic-Cretaceous Vaca Muerta Formation black shales (Argentina): an example of benthos response to oxygen delivery in oxygen-deficient environments. XX International Sedimentological Congress, Aug 13-17, n. 184-S7Vm-213, Quebec City, Canada.
- ❖ **Paz, M.**, Ponce, J.J., Buatois, L., Mángano, M.G., Carmona, N.B. and Desjardins, P. 2017. Seismic scale bottomset facies of a mixed carbonate siliciclastic ramp: The Jurassic-Cretaceous Vaca Muerta Formation in the Picún Leufú area, Neuquén basin, Argentina. Geological Society of America Rocky Mountain Section Meeting, June 8-10, Calgary, Canada.
- ❖ **Paz, M.**, Desjardins, P., Mángano, M.G., Buatois, L.A., Ponce, J.J., Carmona, N.B., Fantín, M.A., Reijenstein, H. and Vallejo, M.D. 2017. Ichnology and sedimentology of the Upper Jurassic - Lower Cretaceous Vaca Muerta Formation, central Neuquén basin. XX Congreso Geológico Argentino, Simposio 5, Geología de la Formación Vaca Muerta, Actas: 110-112, Tucumán, Argentina.
- ❖ **Paz, M.**, Ponce, J.J., Buatois, L.A., Mángano, M.G. and Carmona, N.B. 2017. Ichnology and sedimentology of the Upper Jurassic - Lower Cretaceous Vaca Muerta Formation in the Picún Leufú area, Neuquén basin. XX Congreso Geológico Argentino, Simposio 5, Geología de la Formación Vaca Muerta, Actas: 113-115, Tucumán, Argentina.
- ❖ **Paz, M.**, Buatois, L.A., Ponce, J.J. and Mángano, M.G. 2016. Ichnology and sedimentology of the Jurassic-Cretaceous Vaca Muerta Formation black shales of Argentina: Delineating environmental factors controlling benthic colonization. GSA Annual Meeting, Denver, Colorado, USA: 210-4.

- ❖ Ponce, J.J., Carmona, N., Wetzel, A. and **Paz, M.** 2016. Sedimentología e Ichnología del tramo basal de la Formación Vaca Muerta, Cuenca Neuquina, Argentina: Implicancias en el análisis de la transgresión del Tithoniano. 7º Latin American Congress of Sedimentology and 15th Argentinean Meeting of Sedimentology, pp. 136.
- ❖ **Paz, M.**, Ponce, J.J., González Tomassini, F., Desjardins, P., Buatois, L.A., Mángano, M.G., Reijenstein, H., Vallejo, M.D. and Fantín, M.A. 2016. Ichnology of the Upper Jurassic-Lower Cretaceous Vaca Muerta Formation, Neuquén Basin, Argentina: Delineating environmental changes in fine-grained depositional systems. Ichnia 2016 abstract book: 264, Idanha-a-Nova, Portugal.
- ❖ **Paz, M.**, Elizondo, M., Cevallos, M., Pons, M.J., Giusiano, A. and Cábana, M.C. 2015. Las estructuras de la Dorsal de Huincul en el Yacimiento Aguada Baguales y su influencia en la distribución de la alteración en el Grupo Neuquén. XVI Reunión de Tectónica y V Taller de campo en Tectónica, Actas: 144-145, General Roca, Argentina.
- ❖ **Paz, M.**, Pons, M.J., Cábana, M.C. and Rainoldi, A.L. 2014. Distribución de facies en la Formación Portezuelo, su importancia en la circulación de fluidos (Hidrocarburos-fluidos con Cu). XIX Congreso Geológico Argentino, Actas T1-38, Córdoba, Argentina.
- ❖ **Paz, M.**, Báez, A., Pino, D. and González, P. 2013. Petrografía del cuarzo en granitos sub-volcánicos del Complejo Alessandrini (Triásico Superior), Río Negro. XI Congreso de Mineralogía y Metalogénesis, Actas: 327-328, San Juan, Argentina.
- ❖ Báez, A., **Paz, M.**, Pino, D., Cábana, C., González, P., Giacosa, R., García, V. and Bechis, F. 2013. Geología del sector oriental del Complejo plutónico volcánico Alessandrini (Triásico Superior), Río Negro. 2º Simposio de Petrología Ígnea y Metalogénesis Asociada, Actas: 8-9, San Luis, Argentina.

#### Invited talks

- ❖ **Paz, M.**, 2023. Cryptobioturbation in mudstone: origin, recognition, and extent in oxygen-deficient environments. Invited talk for the Geology Department at the University of Regina, Regina, Canada.
- ❖ **Paz, M.**, 2023. Contourites in the Upper Jurassic-Lower Cretaceous Vaca Muerta Formation unconventional shale reservoir: sedimentologic and ichnologic characteristics. Invited online talk for the American Association of Petroleum Geologists Student Chapter at the Universidade Federal do Paraná, Curitiba, Brazil.
- ❖ **Paz, M.**, 2023. Cryptobioturbation in mudstone: origin, recognition, and extent in oxygen-deficient environments. Invited online talk for the American Association of Petroleum Geologists Student Chapter at the Universidad Nacional del Comahue, Neuquén, Argentina.
- ❖ **Paz, M.**, 2023. Trazas fósiles y su relación con procesos depositacionales en la Formación Vaca Muerta. Invited online talk for the American Association of Petroleum Geologists Student Chapter at the Universidad Nacional del Comahue, Neuquén, Argentina.
- ❖ **Paz, M.**, 2022. Organic-rich, fine-grained contourites in an epicontinental basin: The Upper Jurassic-Lower Cretaceous Vaca Muerta Formation, Argentina. Invited online talk for The Drifters Research Group at the Royal Holloway, University of London, UK.
- ❖ **Paz, M.**, 2021. Trazas fósiles de la Formación Vaca Muerta y sus implicancias para el análisis sedimentológico en coronas de los pozos AP.xp-1001, Rcza.x-1 y SR.xp-1001. Invited online talk for Total Exploration and Production Co., Argentina.
- ❖ **Paz, M.**, 2021. Shallow-water bottom current activity within a muddy clinoform (Vaca Muerta Formation, Argentina): Sedimentologic and ichnologic characteristics. Invited online talk for Shell Research Group.
- ❖ **Paz, M.**, 2021. Bottom current deposits in the Vaca Muerta Formation: Sedimentologic, ichnologic and stratigraphic characteristics and its implications for evaluation of unconventional reservoirs. Invited online talk for Shell, S.A., Argentina.

- ❖ **Paz, M.**, 2018. ¿Corrientes de fondo en la Formación Vaca Muerta? Evidencias icnológicas y sedimentológicas para la discusión. Invited talk for the American Association of Petroleum Geologists Student Chapter at the Universidad Nacional de Rio Negro, General Roca, Argentina.
  - ❖ **Paz, M.**, 2017. Icnología y sedimentología de la Formación Vaca Muerta en el área de Picún Leufú, Cuenca Neuquina, Argentina. Invited talk at the Universidad Nacional de Rio Negro, General Roca, Argentina.
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#### JOURNAL AND THESES REVIEWS

- ❖ 2023, International reviewer of Manuel Pérez-Pueyo Ph.D. thesis, from Universidad de Zaragoza, Spain.
  - ❖ 2023, Reviewer for Palaios.
  - ❖ 2023, Reviewer for Journal of Sedimentary Environments.
  - ❖ 2023, Reviewer for Journal of Asian Earth Sciences.
  - ❖ 2021, Reviewer for Marine Geology.
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#### GRANTS AND AWARDS

##### Awards

- ❖ 2014, Second Special Mention for the poster “Facies diagenéticas y su vinculación con la circulación de hidrocarburos en la Formación Portezuelo, Dorsal de Huincul, Neuquén” at the IX Congress of Hydrocarbon Exploration and Development in Mendoza, Argentina.

##### Research grants

- ❖ 2022, Postdoctoral Research Grant from the International Association of Sedimentologists (IAS). Total amount: 2.500 EUR.
- ❖ 2020, Dr. Rui Feng Geological Sciences and Graduate Studies Award Fund at University of Saskatchewan, Canada. Total amount: 24.000 CAD over a year.
- ❖ 2017-2020, International Dean's Scholarship at University of Saskatchewan, Canada. Total amount: 66.000 CAD over three years.
- ❖ 2018, Graduate Student Scholarship from the International Association of Sedimentologists (IAS). Total amount: 1.000 EUR.
- ❖ 2018, Research Grant of the Geological Society of America (GSA). Total amount: 1.689 USD.
- ❖ 2016, Dr. Rui Feng Geological Sciences and Graduate Studies Award Fund at University of Saskatchewan, Canada. Total amount: 24.000 CAD over a year.
- ❖ 2016, Grant from the Grants-in-Aid Program of the American Association of Petroleum Geologists (AAPG). Total amount: 3.000 USD.
- ❖ 2016, Research Grant of the Geological Society of America (GSA). Total amount: 1.679 USD.
- ❖ 2016, Student Research Grant of the Society for Sedimentary Geology (SEPM). Total amount: 800 USD.
- ❖ 2014, Scholarship of the Argentine Geological Association for thesis development. Duration: 1 year. Total amount: 3.000 ARS.
- ❖ 2014, Scholarship of Encouragement to the Scientific Vocations, of the National University Council. Duration: 1 year. Total amount: 14.400 ARS.
- ❖ 2013, Scholarship of Encouragement to the Scientific Vocations, of the National University Council. Duration: 1 year. Total amount: 12.000 ARS.

- ❖ 2011, Award to become an international exchange student at the Universidade do Vale do Rio dos Sinos (UNISINOS), São Leopoldo, Rio Grande do Sul, Brasil, provided by the Universidad de Río Negro, Argentina. Estimated amount: 1000 USD. Duration: 2 weeks.
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### **FIELD COURSE AND CONFERENCE ORGANIZATION**

- ❖ 2023, Member of the Scientific Committee of the 36th International Meeting of Sedimentology, Dubrovnik, Croatia. Organizer of session “Trace Fossils in Sedimentological Analysis: Expanding their Applicability in Space and Deep Time”.
  - ❖ 2014, Lead organizer of the student field course “Paso Córdoba”, in General Roca, Argentina, overseeing the creation of the course agenda, generating the field guide, and teaching the local geology. Duration: 2 days.
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### **SOCIETY MEMBERSHIPS**

- ❖ Since 2017, Member of the International Association of Sedimentologists (IAS).
  - ❖ Since 2016, Member of the (SEPM) Society for Sedimentary Geology, the Geological Society of America (GSA) and the International Ichnological Association (IIA).
  - ❖ Since 2015, Member of the American Association of Petroleum Geologists (AAPG).
  - ❖ Since 2012, Member of the Argentine Geological Association.
  - ❖ 2016: Student member of the Canadian Society of Petroleum Geologists (CSPG).
  - ❖ 2014-2015, Member of the Society of Economic Geologists.
  - ❖ 2013-2015, Member of the Society of Exploration Geophysicists, Student Chapter of the Universidad Nacional de Río Negro.
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### **COURSES**

- ❖ 2019, Instructional Skills Workshop, an internationally recognized teaching workshop designed to encourage reflective practice and to assist participants in developing their teaching and feedback skills (more info: <https://iswnetwork.ca/>). Obtained at the University of Saskatchewan, Saskatoon Canada. Duration: 3 days.
- ❖ 2016, “Sequence stratigraphy analysis of shales: Key to paleoclimate archives, subsurface fluid flow and hydrocarbon source, reservoir and seal” course, facilitated by Juergen Schieber and Kevin Bohacs in Calgary, Canada. Duration: 8 hours.
- ❖ 2014, “Evaluation of Mineral deposits” course, facilitated by Dr. Pablo Rolando, in General Roca, Argentina. Duration 40 hours.
- ❖ 2014, “Fluid Inclusions: Its use in the interpretation of Geological Processes and Mining Exploration” course, facilitated by Dras. Nora Cesaretti and Graciela Mas (UNS), in Bahía Blanca, Argentina. Duration: 40 hours.
- ❖ 2014, “Geotectonics” course, facilitated by Dr. Andrés Folguera (UBA) in General Roca, Argentina. Duration: 40 hours.
- ❖ 2014, “Hydraulic fracturing concepts in the oil and gas industry” course, facilitated by Ing. Emmanuel D’Huteau and Ing. André Archimio (YPF), in Neuquén, Argentina. Duration: 4 days.
- ❖ 2014: Training course in Resistive and Sonic images, developed by Halliburton in Neuquén, Argentina. Duration: 3 days.
- ❖ 2014, “Fundamentals and applications of paleomagnetism” course, facilitated by Dra. María Paula Iglesia Llanos in General Roca, Argentina. Duration: 40 hours.

- ❖ 2014, “Introduction to Remote Sensing used in Earth Sciences (Geology, Geophysics)” course, facilitated by Geol. Alejandro Caballero in Córdoba, Argentina. Duration: 1 day.
  - ❖ 2013, “Argentine Tectonics” course, facilitated by Dr. Andrés Folguera in General Roca, Argentina. Duration: 28 hours.
  - ❖ 2013, Field School of Tectonics course organized by Dra. Graciela Vujovich, Dr. Daniel Pérez (UBA) and Dra. Suzanne Kay (Cornell University) in San Juan, Argentina. Duration: 2 weeks.
  - ❖ 2013, “Fluid geochemistry of volcanic and geothermal systems” course, facilitated by the Argentine Geologic Association and Universidad Nacional de Río Negro in Caviahue and Copahue, Neuquén, Argentina. Duration: 40 hours.
  - ❖ 2012, Petrophysic field school “From the rock to well logging”, facilitated by Aldo Montagna, Marcelo Marteau y Mariano Buhler (YPF) in Zapala and Chos Malal, Neuquén province. Duration: 50 hours.
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#### LANGUAGES

- ❖ **SPANISH:** Native language.
  - ❖ **ENGLISH:** English studies during six years (2002-2007) at “Sunrise” English Institute in Cervantes, Río Negro, Argentina. Last English exam passed: December 2022, Canadian English Language Proficiency Index Program (CELPIP), in Canada. Obtained score: Reading 12/12, Listening 12/12, Speaking 9/12, Writing 10/12, Total 43/48. Previous exams: June 2015, Test Of English as a Foreign Language, Internet based (TOEFL ibt). December 2007, Preliminar English Test (Council of Europe Level B1) at University of Cambridge.
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#### INFORMATION TECHNOLOGY SKILLS

- ❖ Advanced utilization of mapping software: ArcGis, MapInfo, Global Mapper, ENVI, and QGIS.
- ❖ Advanced utilization of design software: Adobe Illustrator, Corel Draw and FreeHand.