

Newly discovered fossil named after paleontologist

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A collection of *Glossifungites gingrasi* trace fossil burrows. Credit: Ryan King

A newly discovered trace fossil of an ancient burrow has been named after University of Alberta paleontologist Murray Gingras. The fossil, discovered by a former graduate student, has an important role to play in

gauging how salty ancient bodies of water were, putting together a clearer picture of our planet's past.

"One could not find a more passionate and influential teacher of science in the classroom, in the field or at a conference," said Ryan King, lead author of the study and now an adjunct professor at Western Colorado University.

"Naming the fossil after Gingras was a straightforward decision since his research focuses on tying modern observations of how salinity and substrate affect organism burrowing to ancient [burrow](#) appearance and species abundance trends."

Trace fossils are a type of fossil that preserves activity of ancient life in the geological record. They include fossilized footprints, nests, droppings and, in this case, a fossilized burrow dug by an organism that lived in a watery environment.

The fossilized burrow, named *Glossifungites gingrasi*, is from the late Cretaceous of central Utah and was home to water-dwelling insects, similar to mayflies, more than 90 million years ago.

"Fossils like this are significant because they help us narrow down what type of organism dug the burrow—which in turn will tell us about the salinity of the water in which they lived," said King.

Many organisms make use of burrows for shelter and protection while they feed. These animal-constructed sedimentary structures give researchers a clearer picture of biological communities and are important in understanding ancient rivers, bays, estuaries and oceans through their oxygenation levels and saltiness, King explained.

Murray Gingras, professor in the Department of Earth and Atmospheric

Sciences, was the co-advisor for King's doctoral studies and for the master's degree of another researcher on the team, Andrew La Croix, now an assistant professor at the University of Waikato.

"I was surprised and honored," said Gingras of the recognition. "The [graduate student](#) and supervisor relationship is a strong one. Graduate students become the colleagues that you care about the most. Having a graduate student honor you by formally naming a fossil after you is wonderful, because you understand then just how reciprocal the relationship is."

"I have been recognized with a few different awards over the years, but nothing really came close to the pride and elation I felt when Ryan informed me that he and Andrew formally named a trace fossil for me."

The study, "Glossifungites gingrasi n. isp., a probable subaqueous insect domicile from the Cretaceous Ferron Sandstone, Utah," was published in *The Journal of Paleontology*.

More information: M. Ryan King et al, Glossifungites gingrasi n. isp., a probable subaqueous insect domicile from the Cretaceous Ferron Sandstone, Utah, *Journal of Paleontology* (2021). [DOI: 10.1017/jpa.2020.115](#)

Provided by University of Alberta

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