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Dinosaur Tracks Go Digital in Peace Region Palaeontology Research Centre's AVID Project



The Tumbler Ridge Museum Foundation (TRMF), with the Peace Region Palaeontology Research Centre (PRPRC), the centre of dinosaur research and discoveries in British Columbia, is pleased to announce they are a recipient of funding from the British Columbia | Canada 150: Celebrating B.C. Communities and their Contributions to Canada, with the Accessible Vertebrate Ichnology Database (AVID) for 3D Digital Models of British Columbia's Vertebrate Tracks and Trackways.

Dinosaur palaeontology is a contrast of deep past and new technology. This is especially true for dinosaur tracks. Dinosaur tracks are not easy specimens with which to work. Many fossil track sites are dangerous and difficult to access. Dinosaur track specimens are often found on large blocks of rock weighing hundreds of kilograms. The Peace Region (and its wealth of fossil heritage) is not centrally located: large track specimens are impossible to ship to scientists who study dinosaur tracks, and it is logistically difficult for scientists to visit.

Because of these challenges to dinosaur track research, the PRPRC has taken the lead on using 3D digital replicas to document British Columbia's dinosaur tracks. The ultimate goal of digitizing is three-fold: to create as close of a copy of an irreplaceable fossil specimen as possible, to lessen the negative impact of shipping and handling on fossil heritage, and to share our heritage with the world. Each 3D file is created using hundreds of high-resolution digital photographs. PRPRC scientists also work with palaeontologists from around the world in creating and researching 3D digital models of their dinosaur track specimens. Storing digital images of fossils is not much different than storing physical fossils: it requires a lot of space. The PRPRC has the specimens and a growing catalog of 3D models: all that was needed was the digital space. The BC | Canada 150: Celebrating B.C. Communities and their Contributions to Canada Fund makes this possible.

AVID is a server which will store and organize the growing collection of 3D models of British Columbia's dinosaur tracks. The best part is that the server will allow scientists, students, and educators from around the world to view an online catalog of PRPRC dinosaur tracks and trackways for their scientific projects. Dinosaur track researchers from around the world are enthusiastically pledging images of dinosaur tracks from their countries (China, Germany, Spain, United States) to the AVID Project.

Dr. Richard T. McCrea, Head Curator of the PRPRC, explains: "Currently, 3D digital models are often curated by the individual researcher that produced them. With the lack of a central archive like AVID there was an inherent vulnerability to these 3D models: models may only be curated during the career and lifespan of these individuals. The capabilities and resources of individual researchers varies greatly putting their 3D models at risk of neglect and loss. The AVID project provides the important first step toward a solution for long-term, stable storage of 3D digital models and allows for the possibility of a global utilization and accessibility for this digital collection."

With the ever-growing number of digital specimens, access to the server from around the world will be limited by local limits on Internet speed and bandwidth, so any advances in Internet upgrades to the Peace Region will be welcome. The next phase of this project is establishing a mirror server site for the AVID Project, so that not all of our trackway eggs are in one digital basket.

For inquiries about the AVID Project, please contact Dr. Lisa Buckley at lgbuckley@prprc.com.