

Sixty years of citizen science: significant dinosaur trackways, Carboniferous fish, insects, and amphibian footprints from Nova Scotia's Bay of Fundy region, Canada

Tim J. Fedak

Fundy Geological Museum, Parrsboro, Nova Scotia B0M 1S0, Canada <tim.fedak@novascotia.ca>

Eldon George began looking for beach shells and fossils in 1940 after experiencing a traumatic injury to his right arm when 8 years old. He opened the Parrsboro Rock and Mineral Shop and Museum in 1948, and was then featured prominently in the 1957 National Geographic Magazine article *The Great Tides of Fundy*. Eldon worked as a field geologist, but he had a passion for museums and learning after working at the Nova Scotia Museum from 1966–67. Eldon has devoted over sixty years of discovering and collecting fossils and minerals from sites along the Fundy coast near his hometown of Parrsboro, Nova Scotia, and he received the Order of Nova Scotia in 2013. The Cumberland Geological Society purchased the Parrsboro Rock Shop in 2015 in order to build a permanent exhibit and Eldon has donated his collection of fossils to the Fundy Geological Museum. A preliminary inventory of significant specimens is offered here to encourage research interest in the collection.

The inventory was developed with contributions from Beth Ann McCarthy and Dr. John Calder in 2003, Dr. Helen Tyson in 2008, and from subsequent consultations with Eldon George since August 2015. Initial taxonomic identifications had been suggested by Dr. Donald Baird, Dr. Paul Olsen, and several other researchers who have collaborated with Eldon George. The initial list includes over 1500 fossil specimens, collected between 1948 and 2004, from the Carboniferous and Mesozoic coastal exposures on the northern shore of the Minas Basin, Bay of Fundy. Approximately 20% of the specimens appear to be of high research and educational importance. The collection includes 150 specimens of fragmentary paleoniscid and acanthodian fish from the local exposures of early Carboniferous Parrsboro, West Bay, and Horton Bluff Formations, including isolated fin spines, scales, well preserved jaws, and cranial material. A well-preserved body fossil of a Carboniferous insect similar to *Stenodictya* and several isolated wing specimens are of high research interest. There are more than 300 trace fossils, including rare Eurypteryid traces, and Carboniferous to Mesozoic footprints, including *Pseudobradypus*, *Batrachichnus*, *Batrachopus*, *Grallator*, and *Otozoum*. The most famous specimen "the world's smallest dinosaur footprints" was mentioned in a Time Magazine article in 1986.

Eldon George is an accomplished citizen scientist who carefully maintained notes, examined specimens in detail, and collaborated with international researchers. His collection of fossil and minerals provides an important addition to the Fundy Geological Museum.