Atlantic Geology 139

New information on the early Jurassic prosauropod dinosaurs of Nova Scotia

TIM J. FEDAK Department of Biology, Dalhousie University, Halifax, NS B3H 4J1, Canada <tfedak@dal.ca>

The early Jurassic McCoy Brook Formation fluvial and aeolian sandstones can now be recognized as the richest site in North America for prosauropod dinosaurs. Articulated and semi-articulated specimens have been found throughout much of the exposure; however, at least four specimens have been recovered from a small bone bed rich in skeletal material. Recent fieldwork demonstrates that less than one quarter of the bone horizon has been collected, suggesting many more specimens remain to be collected. The bone bed contains articulated skeletons of various sizes and likely represents a mass burial event.

The prosauropod dinosaurs of the McCoy Brook Formation have previously been attributed to the Connecticut Valley prosauropod genus *Ammosaurus*, based on size and morphology of the femora. However, recent preparation of specimens collected during the summer of 2000 show that the pelvis and cervical vertebrae do not resemble *Ammosaurus* or *Anchisaurus*. Therefore, the Nova Scotia specimens at least represent a new taxon occurrence for North America, although the specimens may yet prove to be a new prosauropod taxon. Furthermore, recent preparation of a very small specimen (est. femur length 10 cm), also likely a prosauropod, suggests nesting sites may be found with continued collection activities. Preparation of all specimens is ongoing at the Fundy Geological Museum.

Reports of recent field work, stratigraphy, bone histology, and specimen descriptions will be presented to demonstrate the progress made on the study of these important specimens and directions of future work. This work has been generously supported by research grants from The Jurassic Foundation, Nova Scotia Museum, NSERC Post-Graduate Scholarship, NSERC Systematics Supplement, and NSERC grant #A5056.