

continuity of existing forms of life during Utica times as the shales were being deposited in the old Ordovician sea.

Besides the above localities occurring along this continuous belt or zone of Utica, there are two well-known palaeozoic basins, that of Lake St. John and Ottawa in which this terrane is well developed and in which there are numerous and varied forms of animal life entombed. This points clearly to the fact that in Utica times and in these two isolated and quite separate basins, similar conditions of deposition, sedimentation and conditions under which life existed were present in those early days similar to the conditions outside of these basins.

#### LAKE ST. JOHN BASIN.

From the Lake St. John and Upper Saguenay district the explorations of Sir Wm. Logan, James Richardson, Scott Barlow, Dr. Selwyn, Prof. Laflamme, Mr. F. D. Adams, Mr. D. N. Saint Cyr and others have afforded a considerable quantity of material wherewith to ascertain by means of the fossils to what age or precise geological horizon the different strata there met with belonged. As early as 1829, in a report by Captain F. H. Baddeley, addressed to the Legislature of Quebec, the black bituminous schists of the Utica were recorded in this Lake St. John or Upper Saguenay district. From the collections made by Mr. Richardson, Billings described the *Triarthrus glaber* of Lake St. John as a new and undescribed form. This trilobite is the largest one of the genus yet known, and the specimens obtained by Mr. Adams in 1883 and 1884 show that its dimensions vary greatly, and even surpass those mentioned in the type specimens.

From the "Mouth of the Ouatchouan River," Lake St. John, Mr. Adams obtained the following species in a rusty weathering somewhat indurated black bituminous shale:—

1. *Orthograptus quadrimucronatus*, Hall.
2. *Leptobolus insignis*, Hall.
3. *Endoceras protiforme*, Hall.
4. *Triarthrus glaber*, Billings.