

A HEMIASPIDAN CRUSTACEAN FROM THE NEW YORK SILURIAN WATERLIMES

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Little by little the Bertie waterlimes of western New York, which make the terminal member of the Silurian series, have revealed the genera of that singular group of crustaceans or arachnidans which have been for the most part originally described from the Silurians of the Island of Oesel in the Baltic; Lanarkshire in Scotland and Ludlow, England, and which have been called, taken together, the Bunodomorpha. They represent

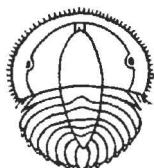


Fig. 1 Hemi-aspis stage of embryo *Limulus*

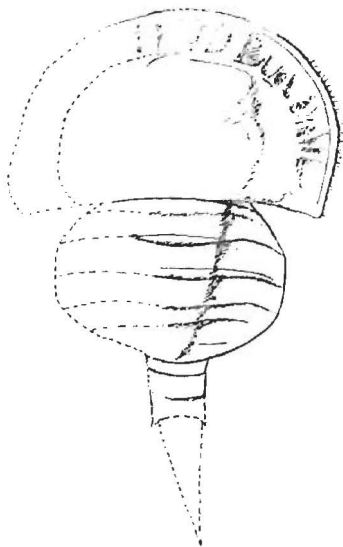


Fig. 2 *Hemiaspis? oriensis* sp. nov.

small creatures of merostome (hence arachnid) structure which could not have been very abundant in the Silurian seas, as species and genera are few in number and individuals. Every new link in this group which helps to tie up the New York formations with those of the Eastern hemisphere is worthy of record.

Of the genera (1) *Neolimulus*, (2) *Bunodes*, (3) *Hemiaspis* and (4) *Pseudoniscus*, all of which were described first from Europe, only *Pseudoniscus* has been found in the Bertie waterlimes (*P. roosevelti* Clarke). *Bunaia* (*B. woodwardi* Clarke, Buffalo) is an adjusted representative of *Bunodes*, as is

perhaps true of *Bunodella* from the Silurian of New Brunswick. *Bunodella woodwardi* was described three years ago as a variant generic type. The haphazard occurrences of these fossils have brought to light this year an evident representative of the *Hemiaspis*-like shrimps; their first appearance in this country. The single specimen found retains only enough of the exoskeleton to verify the approximate identification. Its condition of preservation is bad but what it has to show is seen on the accompanying figure. That it is a true *Hemiaspis* as that genus is understood on the basis of the Scottish specimen, is not altogether clear. In fact the abdominal segments, regarded as free in those, are apparently coalesced into a single shield in this. The completion of this record must wait on the acquisition of further and better material.

The specimen leaves much to be desired; it is not all there; but for purposes of identification it may be known as *Hemiaspis* (?) *ericensis*. It is from the Bertie waterlime quarries at East Buffalo.