This genus is often found attached to foreign bodies as shells or even other corals.

Three species at least are represented in the corniferous, viz., *A. tubæformis*, *A. umbelliferæ*, *A. cornuta.*

When studying the numerous corals of this period, we naturally ask ourselves questions concerning the physical conditions that must have existed to produce this form of life so abundantly.

The similarity in structure between the modern corals and their Palæozoic ancestors is so pronounced that we are quite safe in concluding that the conditions necessary for one would be required by the other. We find our modern corals unable to exist in a sea whose mean temperature is below 68° F., nor can they flourish at depths greater than 15 or 20 fathoms. Coral growth in the seas of modern times is prevented where fresh or muddy water is present, but is much accelerated when the medium in which they are growing is disturbed by currents, this disturbance appearing necessary as a means of transporting food to the polyps.

We have thus data from which we are able to draw a map of the western part of Ontario during the time when the corniferous limestone was being laid down. To my mind, at least, it appears that this map must present many of the insular and oceanic peculiarities of the Southern Pacific at the present day.

List of the principal genera of corals found in the corniferous formation of Western Ontario :—

Diphyphyllum, *Eridophyllum*, *Heliophyllum*, *Blothriophyllum*, *Phillipsastræa*, *Clisiophyllum*, *Zaphrentis*, *Amplexus*, *Cystiphyllum*, *Petraia*, *Favosites*, *Alveolites*, *Michelinia*, *Syringopora*, *Aulopora.*

NOTE.—The descriptions of the microscopic peculiarities of the different genera were made in almost every case from sections of corals, ground in the Mineralogical Laboratory of the University.