of some common form which we cannot expect to find in the life as it exists upon the globe, but we must turn to the imperfect records in the rocks, and that as they have been but little explored, we need not be surprised if that primordial form has not yet been disentombed.

As already remarked, the Silurian rocks occupy a comparatively low place in the geological scale, viz.:—the 4th, the first of the series, has no fossils. There has been found something in them which by some is considered a fossil, but it is questioned by others, so that we may say that these rocks have none, or but imperfect traces of past life. The second is also without fossils. In the third there is only a comparatively small number, but in the fourth, the Silurian, a great outburst of life breaks in upon us, there being as many as 9,000 species discovered. Now what I wish to impress on your minds is the development of animal life at this early stage in the world's history. In order that you may understand it clearly it is necessary to remind you that animal life is divided into six sub-kingdoms:

1. Embracing minute forms of life chiefly microscopic and very rudimentary in their structure.

2. Corals and allied types more highly developed than the preceding but without a heart, and many without a nervous system.

3. Starfish, sea urchins, etc. A distinct nervous system, a circulatory system but not segmentation of the body.

4. Crabs, insects, spiders, etc. Among these the body has definite segments, well defined limbs in many, and good nervous system.

5. Mollusks (snails, oysters and cuttlefishes) generally a shell covers the soft bodies, distinct heart and breathing organ, and a highly developed digestive system.

6. Animals with a backbone and the most highly organized.

We shall examine some of our fossil forms with reference to their position in the scale of life.

EVIDENCE AGAINST THE THEORY.

1. Among our fossils we find the trilobite, a member of a very unique family found in the 4th sub kingdom, and allied to the crabs. It appears to have had a well developed eye, and yet we find it at the beginning of the records, even in rocks formed long before the Silurian.

These creatures do not seem to have developed much, if any, higher than in the Selkirk rocks, for they pass out of existence at the commencement of the 5th system. It is somewhat surprising to find a family of creatures comparatively well organized, appear in such great numbers almost suddenly and almost as quickly end their career.

2. Another fossil of interest in the Selkirk limestone in connection with the theory of evolution, is the cuttlefish. These creatures were very numerous on the Silurian seas, already several species have been found in our rocks, some several feet in length. I wish you to bear in mind how low we are in the line of stratified rocks and at the same time to remember that the cuttlefish not only occupies the highest position in the scale of life, as represented in the 5th sub-kingdom, but also that in some cases they are very near the 6th division.

The cuttlefish has a brain enclosed in cranium; further it has special ganglia, nerve structures set apart for the purpose of giving origin to the nerves of sight, just as we see in the higher animals. Does this not seem surprising that at such an early period in rock formation, life should attain such development? The Silurian rocks do not seem to teach us that the progressive march of life is indicated by a series of connecting links.

3. At Selkirk we have not found traces of plant life, but elsewhere some comparatively few have been obtained allied to the seaweed. But in the next system of rocks (Devonian) there is a marvellous outburst of plant life, huge plants allied to the Equisetum (horse tails) of our own day, gigantic clubmosses, some attaining almost one hundred feet in length, are found in these rocks. Besides these innumerable ferns embracing a great many species.

This wonderful flora breaks suddenly upon us, and side by side with it coniferous plants allied to our pines and firs are found. Here no transitional types appear to be present. The flora of the 5th system seems to be unheralded by primitive types. When we consider the comparatively well developed condition of animal life as represented in the Silurian rocks, occupying a low place in the geological series of rocks with an almost total absence of plant life, followed by a wonderful flora in the Devonian system, it does seem to afford a barrier for a time at least to the adoption of a view which would lead us to believe