In the lower part of the Basal or Georgian series have been found worm tracks, casts and burrows, referred to in a communication to this journal. Of lower organisms, sponges are well represented. Remains of basket sponges (Euplectellidæ) are quite common in the finer beds. Of these. beside the sponges with regular transverse bars, there are others which possess an irregular mesh with diagonal and Another family of sponges is represented forked spicules. by forms with a thick parenchyma and numerous irregular loculi; the oscules in these sponges are sometimes arranged with an approach to a regular order, but more frequently they are irregular. A third family (probably) of sponges has left skeletons of small rods in which no spicules have been found, these are studded with minute elevations marking the place of denser globular masses in the body.

Certain minute bodies with the sponges appear to be Radiolarians, some are club-shaped, others globular, and one is oval with a raised hexagonal ornamentation.

The flora of this series consists of sea-weeds. One of the oldest of these, a Palæochorda, is found in the lowest sandstone beds, where it is associated with the remains of sponges; although a plant of such great antiquity, it is comparatively highly organized in the structure of the stem, to which large jointed setæ were attached.

In the arrangement of its barren fronds, another interesting species recalls the *Fucoides circinnatus* of Brongniart, but in the Acadian species, the branches are flat, and not round, as those of that species are said to be. The Acadian species had narrow, fertile fronds, bearing spikelets (stichidia) after the manner of some of the red sea-weeds.

Brachiopods so far, appear to be rare in this series of beds; there is however, near the middle of the series, a large one having the appearance of an Obolus, and resembling the *Mickwitzia monilifera*, Schmidt, (*Lingula*? or *Obolus*? monilifera Linrs.), but apparently distinct.

Undoubted examples of *Platysolenites* of Pander, a crinoidal genus of the Blue Clay of Russia, have been found with this brachiopod.