

the most lowly forms yet detected are hexactinellid sponges, *Protospongia*<sup>9</sup> (Fig. 338), *Leptomytus*, *Trachyum*. The hydrozoa appear in the earliest forms of the tribe of graptolites which played such an important part in Silurian time. Of the Cambrian types, *Dictyograptus* (*Dictyonema*) is one of the most characteristic fossils of the primordial zone of Scandinavia, and other forms are doubtfully referred to *Phyllograptus*, *Climacograptus* and *Dactyloidites*. Casts which are regarded as those left by medusæ on the soft mud of the sea-shore have been noticed in Scandinavia. The Actinozoa of the Cambrian period occur in a number of early types of corals referred to *Archæocyathus*,<sup>10</sup> *Ethmophyllum* and *Spiroclyathus*. The Echinodermata are represented by crinoids (*Dendrocrinus*), cystideans (*Protocystites*, Fig. 338, *Eocystites*), and star-fishes (*Palæasterina*, Fig. 339). The crinoids reached their culmination in a variety of forms during Palæozoic time. Though still enormously abundant in individuals on some parts of the present sea-floor, they are but poorly represented there compared with the profusion of their genera and species in the earlier periods of the earth's history. Palæozoic crinoids were distinguished by the vaulted arrangement of accurately fitting plates, by which their viscera were completely inclosed, after the manner of the sea-urchins. The cystideans were so named from the bag-like form in which the polygonal plates inclosing them are arranged.

That annelids existed during the Cambrian period is shown by their frequent trails and burrows (*Arenicolites*, Fig. 338, *Cruziana*, *Scolithus*, *Planolites*, etc.). But the most

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<sup>9</sup> For a description of the character of this earliest sponge, see Sollas, Q. J. Geol. Soc. xxxvi. 1880, p. 362.

<sup>10</sup> Hinde, Quart. Journ. Geol. Soc. xl. 1889, p. 125.