

bush or shrub, which appears to clothe the bottom in some places over a large area like heather on a moor. There are at least three species. In one the branches are strict and rigid; while in another the arrangement is more lax, side branches coming off from a flexible central rachis like the barbs from the shaft of an ostrich feather. The branches seem in some cases to be from 50 to 80 centimetres in height, and the stems near the base are 2 to 3 centimetres in diameter. The stem and branches consist of a firm central axis, semi-transparent and of a peculiar yellowish green colour; composed of a continuous horny substance filled with masses of needle-shaped spicules arranged longitudinally in dense sheaves. This axis is overlaid by a soft bark of sponge substance supported by needle-shaped spicules, and full of the bihamate 'spicules of the sarcodæ' so characteristic of the genus *Esperia* and its allies. The crust is covered with pores, and rises here and there into papillæ perforated by large oscula. This sponge appears to belong to a group allied to the *Esperiadæ*, and perhaps even more closely allied to some of the fossil branching forms whose remains are so abundant in some beds of the cretaceous period. A still finer species of the same group was dredged by Mr. Gwyn Jeffreys in the first cruise of the following year.

Another peculiar sponge (Fig. 13) is very abundant and of a large size. This form was admirably described by Professor Lovén—unaccountably under the name of *Hyalonema boreale*. It is certainly very far from *Hyalonema*. It is more nearly allied to *Tethya*, for the body of the sponge must certainly be referred to