

resembling those of the common *Sertularia halecina*, we find, on examination, that they are in reality restricted to one side, and that the apparent fringes of the other are but mere notches in the stem. In one respect, however, judging from the rocks in which we usually find them, these organisms must have resembled the sea-pens. There is a deep submarine ravine, which runs for some distance along one of the middle reaches of the Moray Frith, and at the steep edges of which the water deepens suddenly from about twelve to about thirty fathoms. The bottom on either side is gravelly and hard, whereas the ravine is charged with a dark adhesive mud, abounding in fish bones, and which intimates to the sense of smell, when brought to the surface, that there must have entered into its composition no small portion of organized matter. Now, this muddy ravine abounds with sea-pens. When not a specimen can be procured on the hard ground on either side, the fisherman's lines, when his boat drifts across the hollow, becomes charged with them: every muscle bait brings up attached to it what the fishers of the Frith term its "sea-tree;" so that specimens may be procured by the hundred. And from the dark-colored, finely-grained, semi-bituminous character of the slates in which the graptolites chiefly occur, it is apparent that they also loved a muddy habitat.

I have now to refer to but two other papers on our Scotch Grauwacke. In 1849, Professor Nicol made the Silurian deposits of the south-east of Scotland the subject of yet another very able memoir, in which he specified several new localities for its fossils, and added to the previous list at least one new fossil more, — a hitherto undescribed species of Graptolite. He bestowed much care, too, in ascertaining the general direction of the beds and mountain ranges of our southern Highlands; and found it coincident, on an average drawn from no fewer than sixty-six several observations, with the direction of