Scalpellum acutum, n. sp., dredged off Miguel Island (Azores), and off Kermadec Islands (Pacific).

Scalpellum intermedium, n. sp., dredged off Sydney and off East Cape (Auckland).

All the other deep sea species were found only once, or at two Stations close to one another (*Scalpellum regium* at Stations 61 and 63, *Scalpellum brevecarinatum* at Stations 146 and 147). *Scalpellum stroemii*, Sars, is the only known deep-sea species which may be called a common species over a wide area of the North Atlantic. The most interesting instance of a species having a wide range, however, is *Scalpellum acutum*, found near the Azores, and in the Pacific near the Kermadec Islands; at both Stations, however, only a few specimens were taken. *Scalpellum elongatum* seems also to inhabit the Atlantic as well as the Pacific—specimens were collected at a very different longitude but almost exactly at the same latitude south in both oceans; but the specimens of the two Stations are not altogether alike, which may be due not only to the different sizes (ages) of the specimens, but also to specific difference. Of course continued investigations may show that what at present seems to be an exception, in reality must be considered as the rule; but with the knowledge we possess at present, we must arrive at the conclusion that the deep-sea genera have a world-wide range, but that the deep-sea species ordinarily have only a very limited distribution.

There is another fact of a very puzzling nature which presents itself when comparing the fossil forms with those of the deep sea. The eldest known fossil genus is the genus *Pollicipes*, and this genus is not represented at all among the forms living at a considerable depth. Yet it is by no means an extinct genus, being represented by seven living species, some of which have a very wide range. But these seven species are littoral forms, at least it is not recorded that any one of them was found at a depth of even 10 fathoms. Many of the fossil species, of which Darwin alone enumerates 22, were found side by side with species of *Scalpellum*, which proves that the species of the two genera once existed under the same circumstances of temperature, depth, &c. As the circumstances under which the fossil species lived are not known to us, and especially as we do not know at what depth they existed, it is extremely difficult—not to say impossible—to account for the fact that the descendants of one genus live in shallow water and those of the other in deep water; much more difficult, because in each genus the fossil and the living species are specifically distinct. As the species of *Scalpellum* live at very different depths, from the shallow water on the English and French coasts, in the gulf of Naples, &c., down to almost the greatest depths where animal life has been observed, we need not necessarily conclude that the deep-sea forms are those which have representatives in fossil deposits; yet it is true that the majority of the fossil species of *Scalpellum* (all those found in Secondary deposits) have the carina simply bowed and