

was a new species taken at a depth of 410 fathoms living attached to the spines of a deep-sea Echinid, *Phormosoma hoplacantha*, A. Ag.

"By far the most remarkable feature is the extension of the family of pedunculated Cirripedia containing the genus *Scalpellum*. As far as I could make out, only eleven species of that genus were previously known, and the number of new species which had to be described amounts to forty-three. The same family of Cirripedia embraces the genus *Pollicipes* also, seven species of which are known to inhabit tropical seas all over the world. Of this latter genus, however, the Challenger did not collect a single representative, so it would seem we must conclude that this genus does not occur in the deep sea. Yet the hitherto known (shallow water) species of the two genera live exactly under the same circumstances, and, what is also of some importance, both genera (*Scalpellum* as well as *Pollicipes*) very commonly occur in fossil deposits, especially in Secondary strata.

"Thirty-five out of the forty-three species of the genus *Scalpellum* dredged during the cruise of the Challenger inhabit depths of 500 down to 2850 fathoms. Nine of these correspond with the fossil *Scalpellum maximum* in the shape of the valves of the capitulum, and especially of the carinal latus; twenty-six, on the other hand, have this valve of the same shape as the recent forms known to Darwin. We see, therefore, that in the case of the genus *Scalpellum* the abyssal fauna consists partly of forms resembling fossil species, but contains many more species of a true shallow-water type.

"A remarkable observation from a biological point of view was made in one of the specimens of *Scalpellum stroemii*, Sars. It contained rather large eggs, and these had passed the Nauplius-stage and had arrived at the Cypris-stage; so it is quite clear that at least some of the species of the genus *Scalpellum*, for it is highly improbable that *Scalpellum stroemii* should stand alone in this respect, have lost the Nauplius as a free-swimming larval stage. Nor are the results of the study of the 'complemental' males of *Scalpellum*, discovered by Darwin more than thirty years ago, devoid of importance. It was not only possible to prove that their organisation is highly degenerated, but also to demonstrate in what this degeneration consists, and how much it affects some of the organs, whilst others suffer less, or not at all from it. Though very common in the genus *Scalpellum*, the occurrence of little males does not seem to be a rule without exceptions; there are species which probably are hermaphrodite as other Cirripedia are, and in which no complemental males have been observed; there are other hermaphrodite species to which little complemental males are



FIG. 318.—*Scalpellum eximium*, Hoek.
Station 135, off Tristan da Cunha,
1000 fathoms.