

(1869-70) states the number of recent species is seven, one species (*Scalpellum stroemii*) having been described in 1858 by M. Sars. To this number four species were added by Prof. G. O. Sars (1877 and 1880), and one by Prof. Wyville Thomson (*Scalpellum regium*), from specimens collected during the cruise of the Challenger. The total number of recent species hitherto known, therefore, amounts to twelve. Though all the records of zoological literature have been carefully searched, I do not feel sure that this number really represents the total of at present known recent species; especially since it appears from the collections made during the cruise of the Challenger that the number of existing species greatly exceeds the above named number. More than forty species will later on be described as new to science! Yet I need hardly repeat here that it is often an utter impossibility to avoid describing a species as new, the description of which has been published perhaps long ago in the Transactions of some Asiatic or Australian Society, the existence of which has not even come to the knowledge of the recorders of zoological literature.

The majority of the new species are inhabitants of deep-water. *Scalpellum* seems to be the only genus of Cirripedia which is often met with in the great depths of the ocean. This strikingly coincides with the common occurrence of this genus in the fossil deposits, especially in secondary strata (Cretaceous period). However, the genus *Pollicipes* is there to show that we must not attach too much value to this coincidence (see p. 26). *Pollicipes* is the oldest known fossil genus, all its species live exactly under the same circumstances as the species of *Scalpellum*, viz., attached to various objects which are found on the bottom, but not a single species has been hitherto taken from any considerable depth!

The same observation which Darwin made with regard to the number of specimens of Cirripeds during the Cretaceous period may be made for the living species of this genus; although, Darwin says, the number of species was considerable, the individuals were mostly rare. Now the number of species of the genus *Scalpellum* represented in the Challenger collections amounts to forty-three, and of these twenty-six are represented by a single specimen only, four are represented by two, five by three, two by four, and six only by more than four specimens.

The great number of species in this genus suggested the idea of dividing it into smaller genera. After careful examination this idea, however, has been given up, as all the species in essential characters correspond as closely, even more closely, with one another than in any other genus of Cirripedia. Nor has it been an easy matter to arrange the species in a natural way, especially because I was not at liberty to make preparations of the parts of the mouth and of the cirri of those species which are represented by single or by two specimens only. For this reason, as well as for the sake of practical utility, I have made use of externally visible characters only, such as are furnished by the condition, number, and shape of the different valves of the capitulum, in order to differentiate the various species in the table which follows.