

#### IV.—CONCLUDING REMARKS.

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With the last lines of the foregoing chapter the direct and immediate task of this memoir is accomplished, but it remains still to summarise its more general deductions with respect to what I regard as its chief purpose. The tendency of this is to clear up the present state of our knowledge, and in the first place to prove that, in spite of the acquirement of many new systematically important characters introduced into descriptive Spongiology by F. E. Schulze, which concern the peculiarities of the internal organisation of the soft parts, all the arrangements of the Keratosa hitherto proposed are, on the whole, far from being natural. I hope I have made it clear that the procedure of subdividing the group either directly into families or preliminarily into suborders may be adopted merely as a measure of provisional character. I hope I have also proved that the genera established in the Keratosa are not homogeneous, the characters distinguishing one part of them being of an absolute, those distinguishing another part of an extremely conditional, and often very ambiguous, nature. I am, finally, far from any illusions, and feel certain that the perusal of the descriptive part of this memoir, as well as of other systematic papers on the Keratosa, must show plainly that in most cases the classifier has to found his species on characters whose stability is quite unknown to him, so that whether they are really of specific importance or fit only for distinction of individuals, remains open to discussion. The reader sees that the state of matters is far from satisfactory; and it is natural to ask whether it admits at least of some conjectures as to the way in which our knowledge of the Keratosa may become more perfect? I believe this question may be answered in the affirmative; but since, in cases where decisive, incontestable proofs are wanting, the probability of the suggestion depends on the number of arguments, I should like, before I pass on to the recapitulation of the grounds favourable to my opinion, to increase their number by an argument of no little consequence. This argument refers to the systematic position of the Keratosa in the whole group of Porifera, and it appears to me that a detailed discussion of this question will be the less superfluous, as the corresponding conclusions promise to be not only of theoretical importance but also of practical applicability. There are mainly in practice two different methods of systematic procedure. The usual one is to begin with lower systematic unities, in order to ascend to families, orders, &c. With respect to many other instances