ambiguous nature, since systematically the horny sponges present a kind of *circulus vitiosus*. Through *Luffaria* and *Verongia*, *Euspongia* is connected with *Aplysina*, but, on the other hand, it is also, through *Carteriospongia*, connected with *Spongelia*; now *Spongelia* through *Velinea* is connected with *Aplysilla*, and again *Aplysilla* through *Ianthella* is connected with *Aplysina*. It is evident that under such circumstances the families of Dr. Vosmaer are by no means natural systematic groups. With regard to the mutual relations of the genera of different families, such a *circulus vitiosus* is inconceivable, and proves only that such families are not natural. As I remarked before, I adopt the arrangement proposed by Dr. Vosmaer; to attempt a better one would, I believe, be at present premature; but I adopt it only as an arrangement of a provisional character.

The foregoing observations were begun in order to decide the question—Which of the existing systems of the Keratosa is the most to be recommended? The unexpected result at which we arrived is of such high importance that its further foundation becomes desirable, and as this latter demands a detailed discussion of characters used by classifiers as systematic distinctions between different representatives of our conjectural families, I now pass on to those of generic value.