

naked, its few processes being very rudimentary. Consequently, this genus is represented by forms which differ in their external shape most remarkably from the other Elpidiidæ. Notwithstanding this, a conformity not to be neglected really exists between them, in the arrangement of the internal organs, as well as in the position of the pedicels and the form of the calcareous deposits. It is worthy, indeed, of observation that the four-armed deposits of *Parelpidia* always carry but one process, while the other genera, *Elpidia*, *Peniagone*, and *Scotoanassa*, provided with similar calcareous bodies, always seem to bear, besides those deposits with one process, numerous others having two to five processes. It is possible that after the discovery of some new forms this difference may turn out to be of little or no importance, but, in the present state of our knowledge, it deserves to be kept in mind. The genus *Scotoanassa* seems to represent the type of a new genus on account of its singularly depressed body, and the flattened margins surrounding the anterior and posterior extremities.

On the other hand, it might seem that too little attention is given to the shape of the body by including animals of very different appearances in the genus *Elpidia*. The difference between such forms as *Elpidia glacialis* and *Elpidia verrucosa* on the one side, and *Elpidia willemoësi* on the other, is most conspicuous, this latter species being distinguished partly by the flatness of the posterior end of the body, and partly by the pedicels round this posterior end being webbed together by an extension of the integument. If this peculiarity should call for a new genus, *Peniagone vitrea* and *Peniagone affinis*, for instance, though closely related, for the same reason ought to be separated from one another, the consequence of which would be, in our opinion, that generic division was being urged too far; possibly a separation into sub-genera might, on account of what is mentioned, be justified. I have felt somewhat doubtful whether *Elpidia glacialis*, might not keep its place as the sole representative of the original genus, thus necessitating a new genus for the remaining species, and I am of opinion that this separation might be fully justified—particularly as the calcareous deposits and the construction of the calcareous ring give plain evidence—if I were quite persuaded that *Elpidia glacialis* really is the only form in which the madreporic canal does not communicate with the exterior. Failing this I feel obliged to leave the definite decision of this point to further investigations. The dorsal appendages are found to be of two different kinds, one having the form of larger or smaller, more or less elongated conical processes, enclosing a single canal, the other, on the contrary, consisting of a generally very prominent and broad lobe traversed by several canals. *Parelpidia*, *Elpidia*, *Scotoplanes*, *Kolga*, *Irpa*, and *Achlyonice* carry appendages of the former kind, while the three other genera of this family bear a dorsal lobe of greater or smaller dimensions. The conical processes are usually situated on the anterior part of the dorsal surface, though one pair or more are also to be found posteriorly, as, for instance, is the case in *Scotoplanes globosa*, *Scotoplanes murrayi*, and *Elpidia glacialis*; especially in