in one or two instances I have noticed, instead of the ovoid, probably embryonic mass, the remains of a polypide with tentacles and digestive organs like those of the inhabitants of the zoœcial cells, whence we may suppose that the embryonic mass is developed from or in a polypide, which is gradually replaced by it.

3. The presence of a median pore or its equivalent, which though not formed or developed in the same way in all the Adeoneæ, doubtless subserves the same function in all, and in every case appears to me to differ widely in nature from the lunate pore in *Onchopora*, *Microporella*, &c., as well as from the tubular pores in *Tessaradoma*, *Tubucellaria*, &c.

In the Adeoneæ, the pore seems to be formed in at least three distinct ways. The most common perhaps is by the constriction off of the lower part of the orifice, which in such cases is more or less deeply emarginate or sinuated. But sometimes it appears to arise from an arrest of calcification of the front, independently of the orifice altogether, whilst in other cases it is represented by what may be termed a "perforated area," that is to say, a depressed area or space, the bottom of which, formed by a thin calcified lamina, is pierced by from one to six or eight small circular fimbriated porules, the whole bearing some resemblance, if not some homological relation, to an interzoœcial plate, or so termed "Rosettenplatte." Besides this pore the front of the zoœcial cells and sometimes of the oœcial also, is furnished with one or more sessile avicularia.

4. In several species, if not in all, besides the oœcial and zoœcial cells, others may be seen, usually on the extreme border of the lobes, branches or fenestræ, though sometimes interspersed, which may be termed avicularian cells, that is to say, which are wholly converted into "vicarious" avicularia, whose large mandibles often afford very useful specific characters.

5. To these more important characters may be added one which though minute is so constant as to deserve especial notice. It consists in the circumstance that in the entire group the avicularian mandibles both large and small always exhibit a projecting point or articular process at each end of the base, into or close to which the erector muscles are attached. To which may be added that so far as I have noticed the occlusor muscle of the mandible is always single instead of consisting of two bands as usual.

In doubtful fragments the above character of the mandibles will alone often be found useful as an indication of the affinities of the species.

Though the division is to a certain extent arbitrary, I propose to divide the Family into two or three groups, which may provisionally at any rate be regarded as of generic value.

These are :—

1. *Adeona*, Lamouroux.
2. *Adeonella*, n. gen.
3. *Reptadeonella*, n. gen.