

essential family characters they agree. The plates imbricate in the same directions and on the same plan, and the structure of the ambulacral arææ, which is so special and characteristic, is the same. *Echinothuria* differs from *Calveria* in the wider inter-ambulacral and ambulacral plates, in the smaller amount of overlapping, and in the absence of membranous intervals; and from *Phormosoma* it differs in having the structure and ornament of the apical and oral surfaces of the test the same.

As the genus *Echinothuria* was the first described, I have felt justified in naming the family the Echinothuridæ. I have done this with the greater pleasure, as it brings into prominence a term suggested by my late friend Dr. Woodward, whose early death was a serious loss to science. In Dr. Woodward's memoir, the following curious paragraph occurs:—

“After this apparently conclusive demonstration, it appears desirable to give a name to this fossil and to attempt a short description, although its rank and affinities are still a matter of conjecture. At present it is one of those anomalous organisms which Milne Edwards compares to solitary stars belonging to no constellation in particular. The disciples of Von Baer may regard it as a ‘generalized form’ of echinoderm, coming, however, rather late in the geological day. The publication of it should be acceptable to those who base their hopes on the ‘imperfection of the geological record,’ as it seems to indicate the former existence of a family or tribe, whose full history must ever remain unknown.” The special bearings of the discovery of this group, and of several other animal forms allied to chalk fossils