

through the various museums of the Continent; and by the kindness of Sir Wyville Thomson I was enabled to make a personal examination of almost all of these in the autumn of 1880. Twenty of them belong to *Antedon* and fifteen to *Actinometra*, as these genera are now understood. Four at least of Müller's species (1 of *Antedon*, 3 of *Actinometra*) appear to me to have no real value; while 168 species belonging to these two genera are considered in the present Report, viz., 120 of *Antedon* and 48 of *Actinometra*. Of these there are only two which I have not personally examined, the type of one having disappeared, while I have not as yet been able to visit the museum which contains the other.

Of these 168 species 79 were discovered by the explorations of the Challenger (*Antedon* 64, *Actinometra* 15), which also added two new genera, represented by 4 species, to the family Comatulidæ. Professor Semper's dredgings in the Philippine Islands had previously made known the existence of a third generic type, and a fourth was obtained by the Gulf Stream explorations of the U.S. Coast Survey, though the fact was not recognised at the time. Other species of each of these two genera were obtained by the Challenger, making in all 180 species of this family, 88 of which were new to science.

These numbers are considerably lower than those mentioned in the Preliminary Report. At the time when that was published I had only seen three large *Comatula*-collections besides that of the Challenger, viz., those of the British and Paris Museums, and that made by Professor Semper in the Philippines. Since then, however, I have examined many hundred Comatulæ, including in many cases large numbers of individuals belonging to the same specific type, and the experience thus gained has been of the utmost value, by enabling me to unite under one specific name forms which at first had seemed distinct to the less trained eye. In one or two cases the result has been that the specific names appended to some of the plates which were first printed off have since required alteration; and the same is true of some of the earlier sheets of the text.

The preparation of this Report has been considerably delayed by the pressure of other work and by interruptions of various kinds. The first four years after the collection came into my hands were occupied pretty continuously by the framing of specific diagnoses. These were nearly all completed when Sir Wyville Thomson died, in March 1882; and my leisure time for the next three years was almost entirely devoted to the completion of the Report on the Stalked Crinoids which he had left unfinished. I hoped then that another year's work would enable me to revise my descriptions of the Comatulæ and suffice for the completion of this Report. But this object has been seriously interfered with by a continual increase of professional duties, together with the necessity of completing some long-delayed palæontological work for the Trustees of the British Museum. I have also been much hindered by a troublesome affection of the eyes, which has frequently entailed a prolonged cessation from work.