

be totally absent. There is a possibility that they may have been removed or overlooked. At all events further and more precise observations are necessary before their entire absence can be held to be proved. The possibility of scales being present in *Palmyra* gives a different aspect to Risso's<sup>1</sup> description of *Eumolphe fragilis*, a species he found under stones on the shores of the Mediterranean; and the same may be said of Claparède's genus *Pontogenia*<sup>2</sup> from Naples.

#### Family POLYNOIDÆ.

This family is represented in the Challenger collection by a very large number of species, and a few of these by many examples. Thus while in the important work of Kinberg on those procured during the voyage of the Swedish frigate "Eugenie," thirty, including the Iphionidæ, are described, and Grube's Philippine forms collected by Semper amount to eighteen, those of the Challenger reach to about fifty.

In discriminating the species, little reliance (and in this De Quatrefages agrees) has been placed on the number either of the segments or on that of the scales, within certain limits. The position of the antennæ and tentacles and the general structure of the head in many cases is more satisfactory. Moreover, though Claparède thought that it was wrong to place too great weight on the bifid or simple condition of the bristles, there cannot be a doubt that the minute structure of both dorsal and ventral bristles is absolutely essential in any efficient diagnosis. Some authors, such as Grube, give a drawing of a scale and no other part of a species, but it is well to remember that in many cases scales are absent, and that it has never been proved that the characters afforded by the bristles are unreliable. Bristles alone, it is true, do not suffice to establish genera, but it is worthy of note that they carry with them important corresponding characters in other parts. To say that the bristles of the same foot are bifid and simple, and hence belong to different genera, conveys little information. There are many different kinds of bifid bristles, just as there are many varieties of simple bristles. It is only by a careful study of external configuration, head, scales, bristles, and other parts, that forms so closely allied, yet so distinctly (if delicately) separated, can be thoroughly elucidated. It is often a laborious, and sometimes a hopeless task to discriminate closely allied forms by description alone. A single accurate figure would put the question at rest. Thus it is very difficult to come to definite conclusions with regard to most of the Annelids described by Grube in his *Annulata Cœrstediana*, and so with many given by De Quatrefages; and the expenditure of time is often greater in such cases than is warrantable, for the authors had not closely allied forms in view when making their brief and often superficial descriptions. It is surprising to find such recent and excellent

<sup>1</sup> Hist. Nat., &c., iv. (1826) p. 415.

<sup>2</sup> *Op. cit.*, p. 57.