

this respect it is well to remember that many spontaneously rupture on the slightest irritation.

In regard to the preservation of the Annelids, it is unsafe to mix them with other classes, for when separation is carried out by hands that perhaps are imperfectly acquainted with the group, loose scales or cirri are apt to be overlooked, and are thus irretrievably lost.

One important aid in dealing with any group was entirely absent, viz., coloration. The staff on board the Challenger was wholly inadequate to overtake this department, yet the beauty of the marine Annelids as a whole depends on the endless variety and often gorgeous loveliness of their hues.

METHODS FOLLOWED IN DESCRIPTION.

In dealing with the materials placed at my disposal, an external survey of each was made under a lens, the structure of the feet, the minute anatomy of the bristles and hooks, as well as of the body-wall and other parts, was considered. It was impossible, however, to do more than glance at the anatomy of the group in passing, leaving for the present, for instance, such interesting questions as the nature of the remarkably folded organ (called liver by Johannes Steen¹) at the anterior part of the alimentary canal (below and at the sides of the gullet) of *Terebellides*, for future consideration. Little reliance was placed on the description of the bristles and hooks without accurate representations, since many species come so close that it would be very difficult for one's successors to comprehend all the details. The distinctions while reliable are fine. Moreover, the hard parts just mentioned are less liable to be altered by the spirit than the soft tissues of the animals. The remarkable modifications observed in the bristles of every foot in many of the groups, and which are so disposed that a regular gradation in form exists between those at the superior border, and those at the inferior border, afford even a more complex subject for reflection than the changes undergone by the spines of an Echinoderm.

CLASSIFICATION.

The large number of new forms brought within our knowledge by the Challenger would have been supposed to lead to a noteworthy change in classification, but from the first it was apparent that no new family was required. All the types fell under the groups already constituted, and which have been very satisfactorily given by Malmgren in his *Annulata Polychæta*.² A careful review of these groups in connection with the arrangement and relations of the nerve-cords, and the general structure of the body-wall,

¹ *Jenaische Zeitschr.*, Bd. xvi. p. 227, Jena, 1883.

² *Helsingfors*, 1867.