

only by one or two examples, which have to be kept intact for the use of future investigators, must account for the scanty information which I am able to give with regard to their internal structure.

In some of the specimens the so-called phosphorescent organs were well enough preserved for microscopical examination, and having always held the opinion that the function of all these organs was to produce light, an opinion which has been partly or wholly opposed by Leuckart, Ussow and Leydig, I was particularly anxious that as much as possible of the materials of the Challenger should be utilized for a thorough histological investigation of these organs by zoologists thoroughly versed in the method of histological research. Mr. Murray acceded without hesitation to this proposal, and it was hoped that Professor Moseley would undertake the whole of this investigation; but as he was compelled by other duties to limit himself to the examination of the remarkable organs in the genus *Ipnops*, the remainder were entrusted to Dr. von Lendenfeld. The reports of both these gentlemen will be found in the Appendices to the descriptive report.

My technical descriptions of the Challenger fishes will be found to be much more concise than those given by some recent writers on similar subjects, and will appear to some to be too short. In my own experience, the practice of circumstantially describing every minute detail of the surface of a fish, repeating every point of structure common to all the species of the genus or family, and indiscriminately mixing individual features with specific, not only renders the use of these lengthy descriptions a laborious and thankless task, but actually leads to misunderstandings not less frequently than insufficient short diagnoses prepared by inexperienced describers. In fact, in several instances I have found that the descriptions which I published some ten years ago as "preliminary diagnoses," express so fully the specific characters of the fishes as to render any additions to them superfluous.