

duties is slight. A collection once put in order is easily so retained. Even the cataloguing of it is a task that may not be expected to occupy an ornithologist of Mr. Salvin's ability, knowledge, and experience, a very long time—though catalogues in these days, to be worth anything, are more serious affairs than most people would fancy. The regulations of the office prescribe that its incumbent should then turn his attention to the other ornithological collections possessed by the University; and, even if the rest be trifling, the Swainson Collection may be expected to form a formidable undertaking—to say nothing of others that may be acquired from time to time. We take it for granted that the University will not allow such catalogues to remain in manuscript, but will print and publish them as they are completed. If so, it will be promoting the advancement of science in this particular direction in the most efficacious mode possible, and yet, be it remembered, not in a way that by any means can be termed "educational." The compilation of these catalogues will be purely a matter of research, and the amount of aid they will furnish to scientific ornithologists cannot be calculated. There can be little doubt that to the centre in which such good work is being done, many other collections will gravitate, and thus Cambridge will be for many years to come a recipient and disseminating focus of Ornithology.

Now, even the most ardent ornithologist will hardly maintain that his favourite study is the most important in the wide round of the sciences, or even of those which have to do with biology. The moral of the "Strickland Curatorship" is, that similar appointments ought to be established to do for other sciences what that will do for Ornithology. And even now we have to mention a curious fact which should be an encouragement for future founders or foundresses to cast their bread upon the waters: two other benefits to this branch of science have unexpectedly been the result of Miss Strickland's endowment. The naturalist first selected by her for the new appointment was the learned Dr. Finsch, who, until the last few months, had been pursuing his unwearied labours on a scanty and uncertain pittance at Bremen. When the good people of that city learned that they were likely to lose his services, they bethought them that it was expedient to retain him, and to do this they resolved upon raising his stipend and making his office in their museum permanent. In like manner it happened that Miss Strickland's next selection, a young naturalist of great promise, was induced to stay at Berlin by the creation of a post in the museum there specially for him. Thus the benefactress of Cambridge has the satisfaction of knowing that her bounty has been the means of providing for two meritorious men, besides accomplishing the object she had directly in view. Will no one come forward to further the good work she has so well begun? Now that there is a rumour that one of our greatest living naturalists is likely to be tempted by a glittering bait to the other side of the Atlantic, it is in the power of many a one to preserve the glory of his services to England by founding a Professorship of Biological Research in the University of John Ray and Charles Darwin!

A NEW ORDER OF HYDROZOA

ON the southern shores of France, at a slight depth below the surface of the sea, there may be found attached to stones small patches of one of the horny sponges which will probably arrest the attention of the zoologist by what will appear to him as an unusually obvious and well-defined condition of their efferent orifices or oscula.

If one of these patches be transferred to a phial of sea-water, the observer will soon be astonished by seeing that from every one of the apparent oscula a beautiful

plume of hydroid tentacles will have become developed, and he will naturally believe that the form has at last been found which will remove all doubt as to the zoological position of the sponges, and decide in favour of the hydroid affinities recently assigned to them.*

A more careful examination, however, will show that the orifices on the surface have been incorrectly regarded as oscula, and that the tentacles form no part of the sponge, but proceed from an entirely different organism which is imbedded in its substance.

It will be further seen that the organism with which the sponge is thus associated is contained in a congeries of chitinous tubes which permeate the sponge-tissue, and open on its surface in the manner of genuine oscula, and it will be still further apparent that this organism, while undoubtedly a hydrozoon, and even presenting quite the aspect of a hydroid trophosome, is no hydroid at all, and cannot indeed be referred to any of the hitherto recognised orders of the Hydrozoa, but must take its place in an entirely new and as yet undefined order of this class.

The chitinous tubes and their contents are united by a common tubular plexus which lies towards the base of the sponge, and they thus constitute a composite colony of zooids. The tubes, towards their free extremities, where they open on the surface of the sponge, become much increased in width, and here their contents become developed into a very remarkable body, which has the power of extending itself beyond the orifice of the tube, and of again withdrawing itself far into the interior exactly like the hydranth or polypite of a campanularian hydroid in its hydrotheca. When extended, it displays from around the margin of a wide terminal orifice its beautiful crown of tentacles; but when withdrawn into the interior of the cup-like receptacle, the tentacles are greatly contracted and thrown back into the cavity of its body. Its general appearance, indeed, is very like that of a campanularian hydranth, and a careful examination is needed in order to show that it possesses all the essential characters, not of a hydranth, but of a medusa. It has a circular canal surrounding the terminal orifice and supporting the tentacular crown, and it has four symmetrically-disposed longitudinal canals extending from the circular canal backwards in the walls of the body. No manubrium could be detected, though this was carefully sought for at the point where it might be expected to be found, namely, where the medusiform zooid passes into the common cœnosarc which occupies the narrower portion of the tube; neither was there any appearance of a velum, nor of lithocysts or ocelli; but these are comparatively unessential modifications.

The reproductive system is probably developed in the walls of the longitudinal canals, but in none of the specimens examined was this part of the organisation sufficiently mature to admit of a satisfactory demonstration.

For the little animal thus constructed I propose the name of *Stephanoscyphus mirabilis*. Whether it is to be regarded as parasitically connected with the sponge, or whether the two are only accidentally associated, it is at present impossible to say. At all events, in no instance did I find the *Stephanoscyphus* unaccompanied by the sponge.

Stephanoscyphus may then be regarded as a compound hydrozoon, whose zooids are included in cup-like receptacles resembling the hydrothecæ of the calyptoblastic hydroids; but these zooids, instead of being constructed like the hydranths of a hydroid, are formed on the plan of a medusa. It has plainly very decided affinities with the Hydroida, but is nevertheless removed from these by a distance at least as great as that which separates from them the Siphonophora. It thus becomes the type of a new hydrozoal order, for which I propose the name of *THECOMEDUSÆ*.

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* See Haeckel's "Kalkschwämme."