

It seems clear to me that Linnæus regarded it as a new genus like *Arca* and *Pinna*. None of the shells here described are mentioned in any of his later works.

Tectura, Aud. and M.-Edw., is named and described in the 'Compt. Rend.' for 1824. In the 'Hist. Nat. du littoral de la France,' it is characterized by the gills as a new genus, but not named.

I will conclude with a few bibliographical observations.

The name of the person who writes a work is a matter of perfect indifference to science, and is only necessary for the purpose of distinguishing the work. To the public, each work or edition is as it were a different person.

The 'Museum Boltenianum' was originally written by the possessor of the collection, a pupil of Linnæus, with additions and corrections by P. F. Röding and Dr. Schultze, as appears from the preface furnished by Ant. Aug. Hy. Lichtenstein. I. C. Fabricius mentions, in the 'Mem. of the Nat. Soc. of Copenhagen,' 1793, vol. iii. p. 153, that the most important work of Schultze was the arrangement of Bolten's collection, but which he would probably never be able to complete. Bolten's work was subsequently much used by Link, Lichtenstein in the Duplicate Catalogue, and Schumacher. The work, of which there are two editions, is far from rare.

Link's 'Verzeichniss' was burnt either by accident, as Herrmannsen (on the authority of Beck) states, or by the author; but a copy was preserved at the University of Rostock, which copy has been recently brought to light by the researches of conchologists. The author would not, according to Troschel, acknowledge his work; but no author has a right to repudiate that which has been once published.

Copenhagen, June 3, 1858.

BIBLIOGRAPHICAL NOTICE.

The Aquarian Naturalist : a Manual for the Sea-side. By THOMAS RYMER JONES, F.R.S. &c. London, Van Voorst, 1858, 12mo, pp. 524.

CONSIDERING the number of guides who have within the last few years endeavoured to lead our sea-side pleasure-seekers to find a purer and more intellectual enjoyment than that presented by the ordinary course of existence at watering-places, in the investigation of the wonders which Nature has lavished with a prodigal hand on every shore, it must be confessed that the apparent effect produced is very

small indeed. Books of all qualities and all prices,—from the beautiful but rather costly volumes of Gosse down to the little work in which the “Common Objects of the Sea-shore” are reduced to the level of the lowest capacity at the correspondingly low price of one shilling,—books, good, bad, and indifferent, meet one’s eye at every turn; and if all visitors to the sea-side do not acquire some knowledge of marine zoology, it certainly is not the fault of our natural-history writers. In fact, we are almost surfeited with works published with this object. Mr. Thackeray, when enjoying the hospitality of the amiable Ponto family, found that there was a sameness about a continued pork diet, and considered their beginning upon a sheep an incident worthy of record; and when we look back upon the numerous books that have appeared since 1850 on the Aquarium and kindred subjects, we are quite ready to sympathize with the illustrious snobographer.

Surely in this, if in any similar case, we might entertain a reasonable dread of the production of the effect proverbially attributed to the cooperation of too many cooks. Nevertheless there was one of the *chefs* of the natural-history *cuisine*, if we may be allowed to make use of such a term, a very Soyer in his line, who had not yet contributed any production of his art to the entertainment,—one whose scientific attainments and literary power render his popular writings the most attractive of any that have appeared in our language. His long-promised work on the Aquarium has at length made its appearance; and although it comes, let us hope, in the very last course of the aquarian banquet, it is so savoury in its nature, so delicately seasoned, and so admirably concocted, that, surfeited as we were already, we fall to upon it with renewed relish, and devour its charming pages with avidity.

Indeed, considering the inspiration under which it was written, it would be astonishing were Professor Rymer Jones’s book otherwise than charming; he tells us in his preface, that in its composition he has endeavoured to comply, as far as possible, with the requisitions of his lady-friends, to whose very efficient protection he seems to confide it; sparkling eyes and fairy fingers appear to have been his constant assistants in his investigations of the wonders of the shore; and in his treatment of the subject we trace much of the brilliancy of the eyes and much of the delicacy of the fingers.

But independently of all charms of style, and of the accessories, such as descriptions of scenery and anecdotes, scattered here and there in its pages, the ‘Aquarian Naturalist’ is undoubtedly the best of all the sea-side books which have come under our notice. Commencing, as in duty bound, with directions to the intending “aquarist” upon the establishment and management of his vivaria,—directions which, although occupying only twenty-six pages of the work, contain all the necessary information,—Professor Rymer Jones proceeds to the consideration of the various forms of marine animals, with especial reference to those which may be conveniently introduced into the aquarium. Starting from the lowest animals,

the Sponges and Rhizopods, he works his way upwards through the different classes and orders, describing a few of the most striking species in each, in such a way as to furnish his readers not merely with a desultory sketch of a few animal forms, but with a very finished picture of the zoology of the sea. Thus we not only find in his pages striking and elegant descriptions of the various species of marine animals which are adapted for the purposes of the aquarist, but exceedingly graphic accounts of their habits, mode of life, and especially of their development; and what renders the work of particular value in this respect is the introduction of a feature which we have long thought to be a desideratum in books of the same nature, namely that in addition to information as to what is known upon the creatures referred to, the author has also furnished his readers with an indication of the point at which our present knowledge stops, and of the direction in which further observations should be pursued, so that the keeper of aquaria, who may have the opportunity of observing some animal the history of which is still imperfect, may learn at once from its pages to what to direct his attention.

Of the numerous passages which we had marked for extraction, our space will only allow us to furnish one or two. Here is a specimen of the mode in which our author elevates one of the commonest objects of the shore:—

“The naturalist who confines his attention to the larger and more conspicuous forms of marine productions, neglecting those which, from their minuteness, require the aid of a microscope for their examination, would be but little able to appreciate the scene exhibited upon the exterior of many ordinary shells, when, freshly imported from their home beneath the waves, they are perused attentively with a magnifying-glass. The wonderful variety of animal life that crowds every portion of the surface of some of them, affords a spectacle well calculated to astonish any observer who for the first time contemplates such a scene; and when, upon closer inspection, we perceive how actively employed they all appear, how all find room for life and for enjoyment on the little stage that forms their world, unknowing all beyond, as if creation was confined to them, a reflection by no means unnatural will sometimes steal across the mind, that we ourselves are imaged in their condition, and in their ignorance of what is passing in surrounding nature beyond the sphere of their immediate neighbourhood.

“Six thousand years have passed since man was placed upon this sublunary scene—ages untold have rolled away since these little zoophytes began to live, and toil, and die, and leave behind inscribed in every stone the record of their industry; and yet two centuries have not elapsed since man for the first time suspected their existence—since man first became aware that such things *are*, much less that such things had been, and had perished. Surely the sage was not far wrong who said, that science was a little boy employed in picking up pebbles upon the shore, as specimens of the vast wealth concealed beneath the limitless expanse of ocean.”

The interesting history of the discovery of the animality of Zoophytes is enlarged upon in a most lively and interesting manner at p. 135:—

“Little more than a century has elapsed,” says Professor Rymer Jones, “since zoophytes were considered the undoubted subjects of the vegetable kingdom. The zoologist claimed none of them, if we except the *Actiniæ*, for his province and study, but left them, without dispute, to botanical writers; and if any of these, in reference to a very few zoophytes of less arborescent character than the rest, hazarded a whispered conjecture that they were wrongly classed, it died away in the utterance, and raised no echo to awaken further inquiry.

“The only opposition to the botanical theory came from the mineralogists, who, some of them, questioned the vegetability of such of these productions as were of a hard and stony nature, contending that they were rather rocks or stones formed by the sediment or agglutination of a submarine general compost of calcareous and argillaceous materials, moulded into the figure of trees and mosses by the action of the waves, by crystallization, by the incrustation of real fuci, or by some imagined vegetative power in brute matter.

“It was only somewhere about the year 1730 that Peyssonnel, a physician residing at Marseilles, whose opportunities of observing these organisms entitled him to give an opinion upon the subject, first ventured to maintain, that what had previously been described as the ‘blossoms’ of the coral, were true animals (‘insects,’ he thought proper to call them), analogous to the *Actiniæ* or Sea-Anemones; that the coral was secreted in a fluid form by the inhabitant *Actiniæ*, and became afterwards fixed, hard, and changed to stone; and that all other stony plants, and even sponges, are the work of different ‘insects’ peculiar to each species of these marine productions, which labour uniformly according to their nature, and as the Supreme Being has ordered and determined.

“Jussieu, whose eyes had been opened to the real nature of the zoophytic races by the arguments of Peyssonnel, although, truth to say, he seems to have been convinced sorely against his will, at last declared his complete faith in the animality of these creatures, and his conviction that a numerous list of productions, hitherto unexamined, would be found to be of the same nature: in fact, he seems to have revelled in the enjoyment of the prospect thus revealed before him. ‘All that we have said,’ he thus concludes, ‘of the polyps of the sea is merely a sort of advertisement, which, however, cannot fail to produce the effect which we promise ourselves from it; it will doubtless direct the curiosity of naturalists who reside by the sea to animals so worthy of being better known. They will seek out different species; they will delight to describe to us the varieties presented in their forms, which are never but remarkable; they will study the figure and disposition of the cells of various species, their manner of growth and reproduction, and wherewithal they are nourished; they will place in a clear light everything that has reference to the different polypidoms and their formation, so that a department

of natural history so interesting, so new, and as yet only sketched in outline, may be rendered as perfect as it merits to be.' They will;—but here we must fancy the enthusiastic old gentleman, in the exuberance of his delightful anticipations, flinging his hat and spectacles into the air; and could he but have added, 'they will have aquaria wherein to keep them alive,' his well-powdered peruke would, as we may imagine, have speedily followed them in his frantic exultation."

Where all the descriptions are equally admirable, it is difficult to select any example of the descriptive powers displayed by our author; but the following account of the appearance and manners of *Cydidippe pomiformis* will furnish the reader with a fair specimen of the style in which this department of the work is executed:—

"Amongst all the elegant forms of the Medusæ none can compete with the *Beroë* (*Cydidippe*) *pomiformis*, or emulate the wonderful machinery whereby it frolics in the glassy water. In the bright sunshine, on the level sand, just where the gentle ripples 'kiss the shore, then sleep in silence,' the observant eye may sometimes see a pearl—for such it looks to be—worthy of being a pendent to the one dissolved by Cleopatra,—but so frail, so delicate, so evanescent, that it must be taken up with tenderest care by those who would survey its beauties, and at once transferred into a vessel filled with its own element. Its body is then seen to be a little globe of clearest crystal, tinted with the hues of Iris, and, moreover, fringed from pole to pole with eight transparent bands of active cilia rapidly at work, by the aid of which it glides along, advancing like a meteor through the water.

"It is, however, when the *Beroës* have just been taken from the sea that they exhibit in the highest perfection their locomotive powers, and display in the bright sunshine the splendid iridescence of colouring caused by the action of their cilia to the greatest advantage. As they wheel onwards, rising and falling at pleasure, and creating in their course the glory by which they are encircled, they seem indeed

..... 'gay creatures of the element,
That in the colours of the rainbow live.'

"The variety of their evolutions constitutes one of their principal charms. Sometimes they will ascend from the bottom of the jar to the surface of the water with a slow and regular movement resembling that of a balloon, and descend at the same rate of progression. Again, they will rise more rapidly, and turning their mouth downwards, descend with equal rapidity. At other times, without rising or falling, they will revolve on the transverse axis of their body—then, abandoning all these modes of progression, they will revolve on their longitudinal axis, holding the body vertical, and in this position twirl round and round the glass like graceful waltzers. When the movements of the animal are thus varied, how great must be the variety of motion in the cilia by which the body is propelled! Never for more than a second or two do the cilia cease to vibrate. Even then it is not a total suspension, but a slower and alternant action, that is exhibited; the cilia on one or two contiguous bands remain

stationary, while the adjacent ones on either side are in motion—then those which have been still begin to play, and those that were previously moving remain still: no regular succession of procedure is observable; but some portion of the bands of cilia are kept constantly in action, all seeming to perform their duties quite irrespective of the rest.

“The tentacula of these beautiful animals are, next to their cilia, the most interesting portions of their structure. These organs are not always apparent, but remain enclosed in the creature’s body. They are seldom displayed immediately after the Beroës have been captured, nor when the glass vessel in which they are kept is too much crowded. When, however, not more than five or six are placed together, the tentacula may be seen developed to their fullest extent, frequently extending above six times the length of the body of the animal. The tentacula are often projected from their tubes to their full extent by one impulse, and the slow uncoiling of the slender serpentine filaments from their margin is then very beautiful. Indeed it is scarcely possible to convey by any description an idea of the elegance and diversity of their forms. They seem endowed with exquisite sensibility, which, however, is not always equally delicate. At times, the slightest touch will cause a tentaculum to be drawn back into its sheath with a sudden jerk; at other times it is apparently unfelt. The Beroës never seem to be poised or supported in the water by the assistance of these remarkable organs; but sometimes, when they are extended to the bottom of the vessel, they seem to act as suckers, and to form fixed points whence the animal rises and falls at pleasure, appearing as if moored by these delicate and novel cables.”

But our space warns us of the necessity of bringing this notice to a conclusion, which we do in the hope that the samples of the quality of Professor Rymer Jones’s work which we have here given, will induce our readers to gratify themselves by a perusal of the whole. We may add, that it is illustrated by eight plates, well executed in chromolithography by Mr. Tuffen West, and containing excellent representations of nearly all the objects referred to in the book.

PROCEEDINGS OF LEARNED SOCIETIES.

ZOOLOGICAL SOCIETY.

January 26, 1858.—P. L. Sclater, Esq., F.L.S., in the Chair.

ON NEW SPECIES OF BIRDS FROM THE RIO NAPO, IN THE REPUBLIC OF ECUADOR. BY PHILIP LUTLEY SCLATER, M.A., F.L.S. ETC.

ANABATES MELANOPEZUS.

Supra saturate umbrino-brunneus, uropygio rufescente, cauda pure rufa: subtus pallide cinerascanti-brunneus, medialiter



1858. "Bibliographical notice." *The Annals and magazine of natural history; zoology, botany, and geology* 2, 139–144.

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