

PLATE III.

- Fig. 1.* *Pseudosquilla monoductyla*, A. M.-Edwards, magnified.
Fig. 2. Dactylus of raptorial limb of the same, further magnified.
Fig. 3. Front of cephalic region, showing rostral plate of *P. oculata*, Brullé, magnified.
Fig. 4. Terminal segment and uropoda of the same, magnified.
Fig. 5. Front of cephalic region, showing rostral plate of *P. ornata*, Miers, magnified.
Fig. 6. Terminal segment and uropoda of the same, magnified.
Fig. 7. Front of cephalic region, showing rostral plate of *Pseudosquilla ciliata* (Fabr.), magnified.
Fig. 8. Terminal segment and uropoda of the same, magnified.
Fig. 9. Terminal segment and uropoda of *Gonodactylus graphurus* (White, ined.), Miers (magnified).
Fig. 10. Terminal segment and uropoda of *Gonodactylus trispinosus*, White (ined.), Dana (magnified).
Fig. 11. *Gonodactylus excavatus*, sp. n., magnified.
Fig. 12. Terminal segment and uropoda of the same, further magnified.
Fig. 13. *Gonodactylus furcicaudatus*, sp. n., magnified.
Fig. 14. Penultimate and last postabdominal segments, further magnified.
Fig. 15. Terminal segment, viewed from behind, showing the pits in its posterior surface, magnified.
Fig. 16. Dactylus of one of the raptorial limbs, magnified.

X.—On the Terms *Polyzoa* and *Bryozoa*.
By the Rev. THOMAS HINCKS, B.A., F.R.S.

IN the last number of the 'Annals' Mr. A. W. Waters has raised afresh the question as to the comparative claims of the terms *Polyzoa* and *Bryozoa*. He decides in favour of the latter, and urges its adoption, in opposition to the general practice of English zoologists.

This would be, in my judgment, a retrograde step; it would involve injustice to a most able and original observer; and (as I shall endeavour to show) it is not warranted by the facts of the case.

Mr. Waters is evidently under the impression that those who adopt the name *Polyzoa* do so on the mere ground of its priority and are wholly unacquainted with the contents of J. V. Thompson's paper in which it was first introduced. He expresses his confidence that, as soon as they are let into the secret, they will hasten to transfer their allegiance to Ehrenberg!

In this he is certainly under a misapprehension: some at least of the strongest advocates for the retention of Thompson's name have not contented themselves with ascertaining

the date of his paper, but have also thoroughly mastered its contents, and, strange as it may seem to my friend Mr. Waters, have been much confirmed thereby in their opinion.

As to the question of date there is no room for doubt, and Mr. Waters does not suggest any. The term *Bryozoa* first made its appearance in the 'Symbolæ Physicæ,' in 1831; but Thompson's 'Researches,' in which he proposed the name *Polyzoa* for the type of structure which he had demonstrated in the polypide of the Ascidian zoophytes (for this I take to be what he intended) were published in 1830. And it must be remembered that his observations were made as early as 1820; so that he *really* anticipated not merely Ehrenberg's name, but the discoveries of Grant and Milne-Edwards, though the publication of his results was delayed. Those results are sufficiently remarkable in themselves, and we shall estimate them the more highly when we take into account the conditions under which they were obtained.

But Mr. Waters makes very light of "the bibliographical question of dates," and is confident that we have but to glance at the paper to convince ourselves that we have been thus far under a delusion. He lays it down that "Thompson did not indicate *any group of animals* by his term, and that all he meant by *Polyzoa* was a *single polypide*;" and he implies that to make the term a class-designation would be to give it a totally different sense from that which he intended. For proof of his position he thinks it unnecessary to go further than the title of the paper, "On *Polyzoa*, a new animal discovered as an inhabitant of some Zoophytes."

This view, it seems to me, rests on a complete misapprehension of Thompson's meaning. He used the term *Polyzoa* (in opposition to *Hydra*) to denote a *distinct type of structure*, which he had demonstrated, and not as the mere name of the single zooid. This is evident from the following, amongst other passages:—"The *Polyzoa* will probably be found in many dissimilar genera of the zoophytes, and even mixed up with *Hydra* in some; . . . and hence this discovery must be the cause of extensive alterations and dismemberments in the class with which they have hitherto been associated. . . . I shall merely indicate here in a general way the whole of the *Flustraceæ*, in many of which I have clearly ascertained the animals to be *Polyzoæ*;" which is equivalent to saying that they exhibited the new type of structure, and were thus distinct from the *Hydræ*. In a word, *Polyzoa*, as he uses it here, is essentially a class-designation, and not the name of a mere structural element.

His *Polyzoæ* were polypes exhibiting a molluscan organization, as distinguished from the *Hydræ*; that is, they were strictly a CLASS.

The following passages may be added, as showing clearly the sense in which Thompson used the term *Polyzoa*:—"The other species of *Sertularia* in which the animals have been determined to be *Polyzoæ* may, . . . perhaps, be referred to *one* genus." "The present Memoir has for its object to demonstrate another form of animal not hitherto known, and which, while it must be allowed to belong to a new type of Mollusca Acephala, resembles exteriorly in some manner the Hydra; this animal has been designated by the name *Polyzoa*."

In this passage both *Hydra* and *Polyzoa* are used to denote *types of structure*, and not *elements of the compound organism*.

In the prospectus of the whole work, we find the following as the subject of the tenth memoir:—"Animals of some *Cellariæ*, *Tubuliporæ*, and *Flustracæ* proved to be *Polyzoæ*." To substitute *polypides* (in the mere sense of *single zooids*) for *Polyzoæ* in this sentence would be to render it perfectly unmeaning.

As to the mere form of the word, it seems to me to be a point of the very smallest moment; and Mr. Waters lays no stress on it. No doubt *Polyzoæ* would be the proper reading, if we must of necessity accept Thompson's original error in the construction of the word. But it is surely allowable to alter the ending, and so bring the term into harmony with our present usage. In doing so we retain all that is essential and we leave the honour with him to whom it is justly due.

Thompson's name, then, has every title to adoption; and I venture to think that English zoologists would be little true to their duty if they were to sacrifice the claim of a most able and accurate, though isolated and unobtrusive, investigator, because the majority have thus far failed to recognize it.

I trust that Mr. Waters may find reason to reconsider his opinion; he must certainly adduce some stronger arguments before the "*Polyzoists*" will be at all likely to change theirs.