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of *Manatus americanus*, those of the other Sirenia being, in all probability, also superior in size.

Though, perhaps, the size of the red corpuscles cannot, in our present imperfect state of knowledge, be said to throw much light on the affinities of the Sirenia, it would be nevertheless interesting to be able to add to the characters of the group that they possess very large red corpuscles, in all probability exceeding in size those of any other group of Mammalia.

XX.—*Note on Tethea muricata, Bowerbank.*

By H. J. CARTER, F.R.S. &c.

DURING the examination of the late Dr. Bowerbank's collection of sponges, now the property of the British Museum, I found the type specimen of his "*Tethea muricata*," and only noticing at the time that it was identical with *Wyvillethomsonia Wallichii*, Wright, merely attached this name to it.

Just now, however, I have received a little Arctic sponge from my old friend Dr. Dickie (late Prof. of Botany in the College at Aberdeen), with the following label, viz. "Lat. 75° 15' N., and long. 13° W."—that is, from the Greenland Sea,—and another by Dr. Bowerbank, to whom it had been submitted, viz. "*Tethea muricata*, Bow., MS. The type specimen is from Vigten Island, Norway, by Mr. M'Andrew."

Thus it struck me, when recognizing that it also was a specimen of *Wyvillethomsonia Wallichii* and the same as the type specimen *T. muricata*, which the late Mr. M'Andrew had obtained by dredging off Vigten Island, that the latter might have the priority in nomenclature; so I referred to Dr. Bowerbank's description and illustration of *Tethea muricata* (Proc. Zool. Soc. 1872, p. 115, pl. v. figs. 1–6), and there found that Mr. M'Andrew had presented it to Dr. Bowerbank in 1855, and that the latter had named and figured part of it in the 'Philosophical Transactions' for 1858, pl. 25. fig. 18, and again in 1862, pl. 31. figs. 14, 15. Further on in the description, viz. at page 117, Dr. Bowerbank states that Mr. Kent had described a "specimen of the same species" in the 'Monthly Microscopic Journal,' 1870, p. 293, under the designation of "*Dorvillia agariciformis*."

Under the name of "*Wyvillethomsonia Wallichii*" it was described and figured, from a very young specimen, by Dr. E. Perceval Wright (Quart. Journ. Microsc. Sci. January 1870, p. 7, pl. 11); but Mr. Kent's specimen, being older and much

larger, affords by far the best typical form and detail (for scores of them of all sizes came under my view while describing the sponges dredged up on board H.M.S. 'Porcupine').

Schmidt notices a specimen "with the plates" sent to him by Sir Wyville Thomson in May 1870 (Atlantisch. Spongienf. p. 68); and seeing that it was closely allied to his *Stelletta*, it was added to the list of his "Anchorinidæ" (*ib.* p. 80), under the name of "*Stelletta*" (*Tisiphonia*) *agariciformis*, the latter, viz. *Tisiphonia agariciformis*, being Sir Wyville Thomson's appellation.

It is strange that Schmidt in 1877 (Archiv f. mikroskop. Anat. Bd. xiv. p. 260) should even "provisionally" call another specimen of this sponge "*Stelletta echinoides*," which he obtained from the Bay of Naples.

However, we now know that "*Tethea muricata*, Bowerbank," has the priority of all these names, while it does not detract from the merit of Dr. Wallich, who dredged up the little specimen described by Dr. Wright, on board H.M.S. 'Bulldog,' as far back as 1860.

Tethea cranium, Johnston, has been made the type of my Tethyina, the 16th group of the order Holorhaphidota, in the 3rd family, viz. Pachytragida ("Notes Introductory to the Study and Classification of the Spongida," 'Annals,' 1875, vol. xvi.); so *Tethea muricata*, according to its generic designation, would come in here, where, at p. 198, a list of all the known species is given, with the exception of *Tethea antarctica*, dredged up by Sir J. Ross in 300 fms., $77\frac{1}{2}^{\circ}$ S. ('Annals,' 1872, vol. ix. p. 412, pl. xx.), and *T. zetlandica* (*ib.* p. 417, pl. xxii. fig. 2), the former of which differs from all the rest in having no bihamate flesh-spicule (as confirmed by another specimen from the neighbourhood of Kerguelen Island); and the latter, viz. *T. zetlandica*, I now find to differ hardly in more than varietal characters.

But *Tethea muricata*, = *Stelletta agariciformis* (l. c.), certainly, as Schmidt has intimated, agrees more with his *Stelletta* than with any other known sponge. In the length of its anchoring-spicules, however, it is more like *Tetilla polyura*, Sdt. (Atlantisch. Spongienf. Taf. vi. fig. 8), and *Tethya dactyloidea*, C. ('Annals,' 1872, vol. ix. pl. x. fig. 1), which causes it in this respect to approach the bearded Hexactinellidæ, whose anchoring-spicules again seem to have their length influenced by their usual habitat on the subtle mud of the deep-sea bottom, as the fragment of *Euplectella aspergillum*, which was dredged up on board H.M.S. 'Porcupine,' had no anchoring-spicules at all, its base being directly attached to a branch of *Lophohelia prolifera* ('Annals,'

1876, vol. xviii. p. 472). So also *Tethea muricata* may be influenced in this respect under similar circumstances, as will presently appear.

The long tails (in plurality) of bifid, recurved anchoring-spicules, the long-shafted trifid and once bifurcate "zone-spicules" of the body, the long and smooth acerates, the smaller acerates more or less microspined and more or less inflated in the middle, together with the elongated, subspiral, stellate flesh-spicule, characterize *Tethea muricata*, but nothing more than the lace-like, clathrate sarcode densely charged with this peculiar flesh-spicule, which especially hangs about the body just under the margin of the agariciform head, where the sponge has this form, and in the body generally of the other specimens. It was therefore (as will be seen by a reference to Dr. Bowerbank's illustrations, *l. c.*) this part in particular which he selected for that purpose, which, being peculiar to *Tethea muricata*, at once serves to identify the latter with *Wyvillethomsonia Wallichii*, even if he had not done so himself through *Dorvillia agariciformis* (*l. c.*).

Further, it may be observed that, the type specimen of Dr. Bowerbank's *Normania crassa* (Mon. Brit. Spong. vol. iii. 1874, p. 257 &c., pl. lxxxi.) is only a sessile form of *Tethea muricata*, in every respect similar to one which was dredged up on board H.M.S. 'Porcupine.' Both, like the fragment of *Euplectella aspergillum* to which I have above alluded, were without anchoring-spicules; and each possessed a parasitic *Palythoa* on its surface, like that on the glass cord of *Hyalonema* (see pl. lxxxi. upper margin right side, *l. c.*); so it is not improbable that both, coming from the neighbourhood of the Shetland Islands, may have grown upon hard objects respectively, and not on the subtle mud of the deep-sea bottom. Lastly, the type specimen of Dr. Bowerbank's *Hymeniacion placentula* (*op. cit.* pp. 189 and 353, pl. lxxii.), a species obtained respectively from the Hebrides and the Shetland Islands, is also a similar variety of *Tethea muricata*, which seems from its compressed form to have been dried under pressure.

Although, however, this must lead to the suppression also of the names "*Normania crassa*" and "*Hymeniacion placentula*" (which, together with the sessile specimen dredged up on board the 'Porcupine,' came from the Atlantic Ocean, between the north of Scotland and the Färoe Islands), yet it shows, with what has gone before, that *Tethea muricata* is equally present off the coast of Norway, off the east coast of Greenland, and in the Bay of Naples, together probably with the North-Atlantic sea-bed generally, where Dr. Wallich's specimens were obtained from the

depth of "1913" fathoms. Next to *Tethea cranium* it was the most numerous of all the sponges dredged up on board the 'Porcupine;' and hence my observations on its extreme prolificness ('Annals,' 1876, vol. xviii. p. 405) under the name of *Tisiphonia agariciformis*, Wy. Thomson, 1870, = *Tethea muricata*, Bowerbank, 1858. Perhaps the sessile varieties might be termed "*crassa*, Bk."

XXI.—*Descriptions of several new Species of Lepidoptera in the Collection of the British Museum.* By ARTHUR G. BUTLER, F.L.S. &c.

RHOPALOCERA.

PANOPEA, Hübner.

Panopea expansa, n. sp.

Wings above smoky brown with black veins: primaries with a broad central oblique patch (cut into six divisions by the nervures), a subcostal spot halfway between it and apex, below which are two or three longitudinal streaks followed by seven submarginal spots, all subhyaline pearly white; a bifid internal patch and a spot at apex opaque white: secondaries crossed by a broad central band of subhyaline pearly white; its outer edge dentated through the incursion of the black internervular folds; a submarginal series of white spots, followed by a marginal series of orange spots: body black, thorax white-dotted. Primaries below paler, whitish at base: secondaries with the base yellowish and marked by seven black spots; external area pale bronzy brown, with the submarginal white spots much larger than above; no orange spots; palpi white with black tips; pectus black, spotted with white; abdomen testaceous. Expanse of wings 3 inches 1 line.

Masasi, East Africa.

This species is most nearly allied to *P. protracta*; but the broad patch or band of primaries renders it a link between that group and *P. mima*; the marginal orange spots of the secondaries are peculiar.

NEPTIS, Fabricius.

Neptis trigonophora, n. sp.

Allied to *N. melicerta*, but with the broad bifid discoidal
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