

Fig. 2 represents the outer or inhalant surface of the sponge, with the remaining portion of its short pedicel.

For its anatomical structure see Plate VI. fig. 7.

PLATE VI.

Dysidea conica.

Fig. 1. The type specimen, natural size.

Isodictya Donnani.

Fig. 2 represents the type specimen, natural size.

Fig. 3. A section, at right angles to the dermal surface, exhibiting the skeleton-reticulations and the interstitial membranes and their spicula, magnified 80 linear.

Fig. 4. One of the very small acute spicula from the dermal membrane, magnified 250 linear.

Fig. 5. A full-sized skeleton-spiculum, magnified 250 linear.

Fig. 6. One of the smaller skeleton-spicula from the interstitial membranes, magnified 250 linear.

Spongionella Holdsworthii.

Fig. 7 represents a small portion of the keratose skeleton of the sponge from the thinnest part of the distal margin, magnified 80 linear.

PLATE VII.

Haliphysema tubulatum.

Fig. 1 represents the type specimen, natural size.

Fig. 2. The distal portion of one of the skeleton-tubuli and its numerous skeleton- and defensive spicula, with the remains of, apparently, the skin of a minute annelid at *a*, and a small portion of the interstitial spicula at *b*: magnified 80 linear.

Fig. 3. Portions of two of the skeleton-tubuli from near the middle of their length, showing their loose and tortuous course, and their interior structure through longitudinal sections of the tubuli: magnified 80 linear.

Fig. 4. One of the largest skeleton- and defensive spicula, magnified 150 linear.

Fig. 5. A small-sized skeleton- and defensive spiculum, magnified 150 linear.

Fig. 6. Two of the small subfecto-attenuato-acuate incipiently spinous defensive spicula, magnified 150 linear.

3. Note on the Occurrence of *Xenospongia patelliformis*, Gray, on the Coast of Ceylon. By E. W. H. HOLDSWORTH, F.L.S., F.Z.S.

[Received January 7, 1873.]

This curious form of sponge was described and figured by Dr. Gray in the 'Proceedings' of this Society in 1858, p. 229, pl. xii., from two dried specimens received from Torres Straits; and, so far as I can discover, no other locality was known for it until I fortunately met with a single young example on the Ceylon pearl-bank. This specimen was obtained from a depth of about 8 fathoms, on a sandy part of the bank; and, knowing that an opportunity of examining this sponge in as nearly as possible its natural condition was desired at home, I at once put it in spirit, and on my return to England placed it in the hands of Dr. Gray.

It is not easy to understand the causes of the geographical distribution of many marine animals. Temperature and depth of water have no doubt much to do with it in many cases, as, for instance, with the various kinds of corals; and such causes may have their influence on the range of this sponge; but it is interesting to note that of the two known localities for it, one of them (Torres Straits) is in lat. 10° S., and the other (the Ceylon pearl-banks) is in lat. 9° N. The temperature of the Ceylon seas varies but little from 82° Fahr.; and that is, I believe, about the warmth of tropical waters in general, unless influenced by some polar current. The apparent absence of this sponge from the intermediate equatorial sea is therefore due probably to the little use that has yet been made of the dredge in the waters between India and Australia, rather than to any difference in the physical conditions of life there; and if the Deep-Sea Dredging-Expedition does not meet with it in that as yet little-explored region, the localization of the genus *Xenospongia* at short and almost equal distances north and south of the equator will be rather remarkable.

This sponge is not mentioned by Dr. Bowerbank in his report on my collection of Ceylonese species, as the specimen was sent to the British Museum, and did not come into his hands for examination.

4. On the Value in Classification of a Peculiarity in the Anterior Margin of the Nasal Bones of certain Birds. By A. H. GARROD, B.A., F.Z.S., Prosector to the Society.

[Received December 3, 1872.]

Since commencing the study of the anatomy of birds, it has always appeared to me that two distinct types of nasal bones can be distinguished among them without difficulty—and that if those which present the abnormal characters are considered separately, they present other features in common which justify their being placed in the same class, and their entire separation from those which present the less-modified arrangement.

In most birds the anterior margin of the nasal bone is concave, with the two cornua directed forwards—one along the outer edge of the nasal splint of the præmaxilla, to form the inner margin of the osseous external nares, whilst the other, which is free, descends as part of the external boundary of the same aperture in connexion with the ascending process of the maxilla, which it joins. These two processes become continuous behind with the body of the bone, and with one another, there being no interruption of any kind between them. Such a condition is found in its simplest form in *Ovis* and the Gallinæ proper; and birds possessing the bone so constructed may be termed *holorhinal*: in them a transverse straight line, drawn on the skull from the most backward point of the external nasal aperture of one side to that of the other, always