Michael Nelson

Sea Life of Massachusetts

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Actinia, or Sea-Anemone. (Metridium marginatum Edw.)

Nothing can be more unprepossessing than a sea-anemone when contracted. A mere lump of brown or whitish jelly, it lies like a lifeless thing on the rock to which it clings, and it is difficult to believe that it has an elaborate and exceedingly delicate internal organization, or will ever expand into such grace and beauty as really to deserve the name of the flower after which it has been called. Figs. 2, 3, 4, and 5, show this animal in its various stages of expansion and contraction. Fig. 2 represents it with all its external appendages folded in, and the whole body flattened; in Fig. 3, the tentacles begin to steal out, and the body rises slightly; in Fig. 4, the body has nearly gained its full height, and the tentacles, though by no means fully spread, yet form a delicate wreath around the mouth; while in Fig. 5, drawn in life-size, the [Pg 9] whole summit of the body seems crowned with soft, plumy fringes. We would say for the benefit of collectors that these animals are by no means difficult to find, and thrive well in confinement, though it will not do to keep them in a small aquarium with other specimens because they soon render the water foul and unfit for their companions. They should therefore be kept in a separate glass jar or bowl, and under such

circumstances will live for a long time with comparatively little care.

Figs. 2,3,4. Actinia to different degrees of expansion (Agassiz)

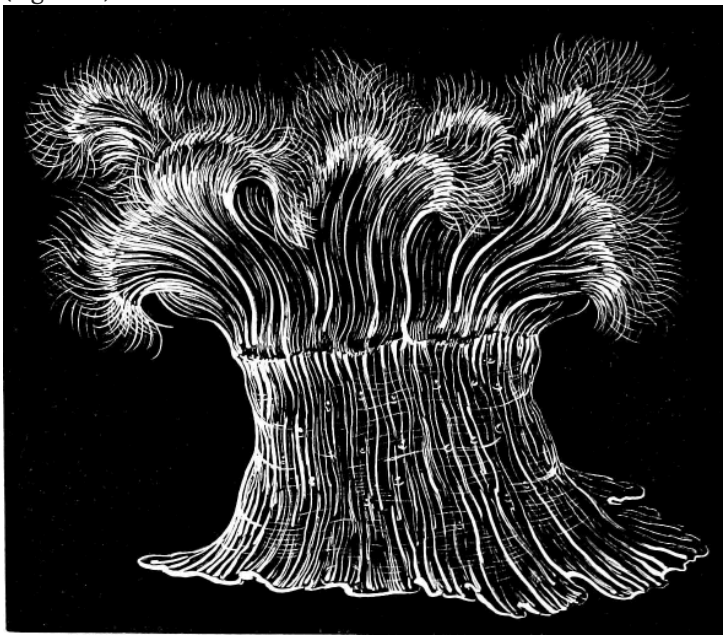

Fig. 5. The same Actinia (Metridium marginatum) fully expanded; natural size.

They may be found in any small pools about the rocks which are flooded by the tide at high water. Their favorite

haunts, however, where they occur in greatest quantity are more difficult to reach; but the curious in such matters will be well rewarded, even at the risk of wet feet and a slippery scramble over rocks covered with damp sea-weed, by a glimpse into their more crowded abodes. Such a grotto is to be found on the rocks of East Point at Nahant. It can only be reached at low tide, and then one is obliged to creep on hands and knees to its entrance, in order to see through its entire length; but its whole interior is studded with these animals, and as they are of various hues, pink, brown, orange, purple, or pure white, the effect is like that of brightly colored mosaics set in the roof and walls. When the sun strikes through from the opposite extremity of this grotto, which is open at both ends, lighting up its living mosaic work, and showing the play of the soft fringes wherever the animals are open, it would be difficult to find any artificial grotto to compare with it in beauty. There is another of the same kind on Saunders's Ledge, formed by a large boulder resting on two rocky ledges, leaving a little cave beneath, lined in the same way with variously colored sea-anemones, so closely studded over its walls that the surface of the rock is completely hidden. They are, however, to be found in larger or smaller clusters, or scattered singly in any rocky fissures, overhung by sea-weed, and accessible to the tide at high water.

Astrangia. (Astrangia Danæ Ag.)

In Figure 16, we have the only species of coral growing so far north as our latitude. Indeed, it hardly belongs in this volume, since we have limited ourselves to the Radiates of Massachusetts Bay,—its northernmost boundary being somewhat to the south of Massachusetts Bay, about the shores of Long Island, and on the islands of Martha's Vineyard Sound. But we introduce it here, though it is not included under our [Pg 17] title, because any account of the

Fig. 16. Astrangia colony; natural size.

This pretty coral of our Northern waters is no reef-builder,

and does not extend farther south than the shores of North Carolina. It usually establishes itself upon broken angular bits of rock, lying in sheltered creeks and inlets, where the violent action of the open sea is not felt. The presence of one of these little communities on a rock may first be detected by what seems like a delicate white film over the surface. This film is, however, broken up by a number of hard calcareous deposits in very regular form (Fig. 20), circular in outline, but divided by numerous partitions running from the outer wall to the centre of every such circle, where they unite at a little white spot formed by the mouth or oral opening. These circles represent, and indeed are themselves the distinct individuals (Fig. 17) composing the community, and they look not unlike the star-shaped pits on a coral head, formed by Astræans. Unlike the massive compact kinds of coral, however, the individuals multiply by budding from the base chiefly, never rising one above the other, but spreading over the surface on which they have established themselves, a few additional individuals arising between the older ones. In consequence of this mode of growth, such a community, [Pg 18] when it has attained any size, forms a little white mound on the rock, higher in the centre, where the older members have attained their whole height and solidity, and thinning out toward the margin, where the younger ones may be just beginning life, and hardly rise above the surface of the rock. These communities rarely grow to be more than two or three inches in diameter, and about quarter of an inch in height at the centre where the individuals have reached their maximum size. When the animals are fully expanded (Fig. 18), with all their tentacles spread, the surface of every such mound becomes covered with downy white

fringes, and what seemed before a hard, calcareous mass upon the rock, changes to a soft fleecy tuft, waving gently to and fro in the water. The tentacles are thickly covered with small wart-like appendages, which, on examination, prove to be clusters of lasso-cells, the terminal cluster of the tentacle being quite prominent. These lasso-cells are very formidable weapons, judging both from their appearance when magnified (Fig. 19), and from the terrible effect of their bristling lash upon any small crustacean, or worm, that may be so unfortunate as to come within its reach.

Conclusion

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