

shrinkage of a spawn-spent oyster in alcohol or chromic-acid solution is excessive, and will, when complete, reduce the animal to one tenth of its bulk while alive. This shrinkage is due to abstraction of the water with which the loose spongy tissue of the exhausted animal is distended. A so-called "fat" oyster, on the other hand, will suffer no such excessive diminution in bulk when placed in alcohol or other hardening fluid. In consequence of this variable development of the reproductive organs as well as that of the connective tissue of the body-mass, the amount of solid protoplasmic material contained in the same animal at different times under different conditions must vary between wide limits. And inasmuch as the nutritive and reproductive functions of animals are notoriously interdependent, it follows, in consequence of the enormous fertility of the oyster, that a vast amount of stored material in the shape of connective tissue must be annually converted into germs and annually replaced by nutritive processes. Plentitude or dearth of food are also to be considered; but it now becomes a little easier to understand the physiological interdependence of the reproductive function and the so-called fattening process.

To a great extent what has been remarked in the preceding paragraphs of the wasting-away of the reproductive organs in *Ostrea virginica* seems to apply also to *O. edulis* and *O. angulata*. The last species has an extraordinarily thick body-mass, with the stratum of reproductive follicles of remarkable thickness, averaging a much greater development than I have ever seen in any other form. When the contents of this great mass of tubules has been discharged a diminution in the bulk of the body-mass must naturally ensue, probably accompanied by a wasting-away of the connective tissue and tubules, such as apparently occurs in the American species. From what I have seen of the generative tubules of *O. edulis* in sections, they are evidently regenerated much as in *O. virginica*. In a few specimens I find them almost entirely gone, or present only in an extremely rudimentary state.

VI.—*Occurrence of Rhinodon typicus, Smith, on the West Coast of Ceylon.* By A. HALY.

ON January 5th a large female shark which I identify as *Rhinodon typicus* was entangled in the nets at a fishing-village called Moratuwa, twelve miles south of Colombo. The native population were greatly excited, and flocked in large

numbers to the beach to see it, fish of this size being very rarely caught on this coast. The following are the principal measurements :—

	ft.	in.
Total length from point of upper jaw to tip of upper caudal lobe	23	9
Girth behind pectoral	13	0
Distance of first dorsal from point of upper jaw	10	0
Anterior edge of ditto	1	10
Base of ditto	1	10
Distance between first and second dorsal	2	8
Anterior edge of ditto	0	11
Base of ditto	0	11
Length of upper caudal lobe	5	0
Length of lower caudal lobe	2	7
Anterior edge of anal	0	9
Base of ditto	0	9
Anterior edge of ventral	1	0
Base of ditto	1	0
Anterior edge of pectorals	3	6
Depth of second gill-opening	2	7
Diameter of spiracle	0	1½
Ditto of eye	0	1½

The width of the mouth when fresh was 3 feet ; but it has shrunk in drying to 1 ft. 11 in. The form of the mouth is lost in the mounted specimen. When fresh the lower jaw was quite straight and flat, nearly, if not quite, on a level with the surface of the abdomen, and considerably in advance of the upper, so that the band of teeth in the lower jaw was quite uncovered. This band averages 1 inch in breadth, and consists of fourteen rows of minute, sharp, recurved teeth, 2 millim. long, all of equal size. The band in the upper jaw is $\frac{3}{4}$ inch broad, and consists of eleven rows of similar teeth. I was in hopes of finding either eggs or embryos, which are occasionally to be obtained from large sharks and skates caught at this season ; but there was no sign of her having approached the shore on account of its being the breeding-season. The stomach contained a quantity of finely divided red matter.

This makes the sixth species, obtained mostly near Colombo, not mentioned in Day's 'Fishes of British India,' and now in the collection of the Colombo Museum. They are :—

Branchiostoma lanceolatum, Pall.

Rhinodon typicus, Smith.

Diodon maculatus, Günth.

Chilinus undulatus, Rüpp.

Xiphochilus robustus, Günth.

Peristethus —? Near Galle, deep water, probably about 50 fathoms.



Haly, A. 1883. "VI.—Occurrence of *Rhinodon typicus*, Smith, on the West Coast of Ceylon." *The Annals and magazine of natural history; zoology, botany, and geology* 12, 48–49. <https://doi.org/10.1080/00222938309459571>.

View This Item Online: <https://www.biodiversitylibrary.org/item/54294>

DOI: <https://doi.org/10.1080/00222938309459571>

Permalink: <https://www.biodiversitylibrary.org/partpdf/53581>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Smithsonian

Copyright & Reuse

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.