

durch die Analöffnung in die Öffnung der Harnblase übergeht und von hier aus in die Harnleiter gelangt. Was den Entwicklungszeitraum des *D. folium*, vom Beginn seines Eintritts in den Darm bis zur Bildung fertiger Eier anbelangt, so kann ich vorläufig nur behaupten, daß hierzu mehr als zwei Wochen erforderlich sind.

### 5. A Rare Shark, *Rhinodon pentalineatus* n. sp.

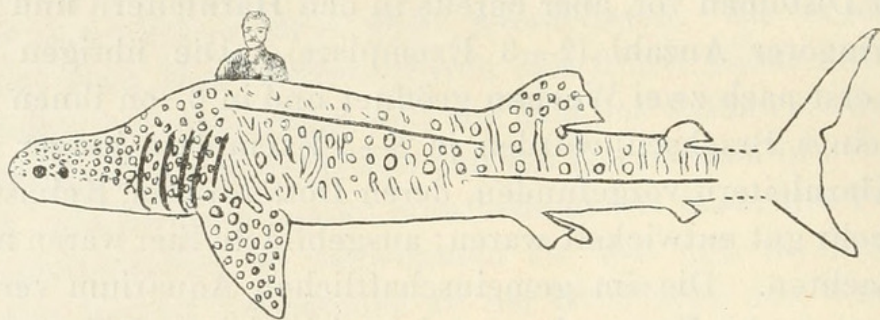
By Kamakichi Kishinouye, Imperial Fisheries Bureau, Tokyo.

(With 2 figs.)

eingeg. 22. August 1901.

On 10th June 1901 a rare and gigantic shark was caught by drift net off Cape Inubo. Mr. Tsuratame Oseko who keeps a collection of rare things for show in Asakusa Park, Tokyo, bought the fish and brought its skin to Tokyo to be stuffed, notwithstanding many difficulties, accompanying its enormous size and ponderous weight. The

Fig. 1.



external part is complete, except the portion between the anal fin and the caudal.

The general appearance of the fish is very ugly, with the flat and blunt head, straight, terminal mouth and the small eyes. The skin is fine-grained, except five longitudinal smooth bands one dorsal median and two pairs lateral. The ventral lateral band seems to be continuous to the kiel on each side of the tail (fig. 1).

Fig. 2.



The eyes very small, situated at the sides of the head near the margin of the colored portion of the head. The nictitating membrane wanting. The spiracles are nearly the same in size and are on the same level, with the eyes. The nostrils are at the anterior extremity of the head. They open at the labial boundary of the mouth.

The mouth is nearly straight and opens at the anterior extremity of the head too. A labial fold from the nostril to the corner of the



mouth on the upper jaw and a shorter fold from the corner of the mouth on the lower jaw (fig. 2).

The teeth are very minute and numerous. They are nearly equal in size and shape. Each tooth is acutely pointed, laterally compressed and with an ellipsoidal root. The band of teeth on the upper jaw is curved a little and at each end of the band there is a detached group of teeth. The band on the lower jaw is crescent shaped. In each band the teeth are arranged in a great many transverse rows, about 300 in number. In the middle part of the band we count 16—30 teeth in one row.

The gill openings are five in number and are very wide. The second pair is widest and measures 86 cm. The last pair is most narrow, it opens above the base of the pectoral fins, where the body is very broad and high. The pectoral fins are large and strong. The first dorsal fin is inserted a little behind the middle of the body. The second dorsal fin is very small. The ventral fins are inserted below the first dorsal. The clasper is simple with a dorsal groove. The anal fin is very small. It is just below the second dorsal. The caudal fin is large and lunate. Its ventral lobe is well developed.

The color is greyish brown with white round spots and transverse bands, but the ventral side is colorless. The white round spots are small and crowded near the anterior end of the body but become gradually larger and fewer backwards. The caudal fin, the second dorsal the ventrals and the anal are destitute of white markings.

The stuffed animal now measures 800 cm in length and 365 cm in circumference, behind the pectorals. Mr. Oseko tells me that the skin has shrunk much and that the fish measured nearly 1000 cm when fresh. He says, moreover, that the shark was covered with many sucking fishes and one of these fishes and a pole made of oak (ca. 30 cm long) were found in the stomach.

Though the hitherto-known allied species (*Rhinodon typicus* Smith and *Micristodus punctatus* Gill) are described insufficiently, I am inclined to believe that this fish is a new species of the Genus *Rhinodon*, as it differs from these species in the form of teeth and the labial fold. Hence I propose the name of *Rhinodon pentalineatus* for this species.

Tokyo, 22 July, 1901.



Kishinouye, Kamakichi. 1901. "A rare Shark, *Rhinodon pentalineatus*, n. sp." *Zoologischer Anzeiger* 24, 694–695.

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