DESCRIPTION OF TWO RARE TASMANIAN FISHES.

By R. M. Johnston, F.L.S.

Genus Histiophorus.

Body rather compressed and elongate ; the upper jaw much produced, conical, extending far over the lower. Two dorsals, the anterior of which are much longer than the posterior, and formed by spinous and soft rays. Ventrals to a single or two or three spines. Scales, none sometimes rudimentary dermal productions. Small teeth in the jaws and on the palatine bones, none on the vorner. Seven branchiostegals ; air bladder present. Pyloric appendages exceedingly numerous. (Gunther).

Histiophorus Herschellii, Gray.

D. 42/7, A. 12/6, V. 1.

The greater portion of the dorsal fin much lower than the body. The height of the body is more than one-half the length of the head and one-seventh of the total. The upper jaw is rather depressed, rounded superiorly and inferiorly; its length from the nostrils is nearly three-quarters the length of the head. Dermal productions, numerous bifurcate hidden in the skin.

A fine specimen, 13ft. 6in. total length, was recently discovered by me stranded and half buried in the sand bank communicating with a large lagoon, immediately to the north of Cape Fredrick Henrick on Forestier Peninsula. It answers in all characteristic points to the above species so far as could be observed. Unfortunately it was much decomposed internally, and the ventral and anterior portions of anal fin were destroyed. The anterior part of spinous dorsal was elevated into a crest composed of about 11 spines, curving between the occiput and a line passing through posterior of præoperculum; somewhat truncated at its point of junction with the rest of dorsal spines, which were uniformly only about 2in. high to junction with soft rays near peduncle, which are slightly higher than the posterior portion of spinous dorsal rays. The longest rays of first dorsal were about 12 to 14 inches. The soft anal is developed similarly to the soft dorsal, each composed of seven rays. The characters and dimensions as observed were:—

	Feet.	Inches.
Length of head to extremity of upper jaw ...	4	0
Breadth of expanse of tail forks	4	4
To greatest depth about	2	0

D. 11·31/7, A. -/7, V. P. 14 falcate.

Dermal productions, bifurcate or lozenge shaped; skin thick hard and bony.

As Dr. Gunther states that specimens of this genus are few and imperfect in museums, and as it is desirable to make further observations on large individuals, it is of the greatest importance that this noble specimen should be secured for our Museum. The specimen was too large for me to carry to town, as I was at the time travelling on foot; but I have urged Mr. Frank Rush, to whom I have explained its nature and position, to bring it to town as perfectly as possible on his next trip to that locality. It would be desirable for the Museum authorities to assist in defraying the expense of its removal to Hobart. It would prove a most interesting as well as valuable addition to their collection.

The addition of the above species of swordfish to our catalogue of Tasmanian fishes, will be of much interest to ichthyologists generally.

I have heard of a swordfish having been seen prior to the publication of my catalogue and observations on Tasmanian fishes in 1880, but being in doubt, I omitted it from the list of fishes then given.

Genus Lamna.

The first dorsal fin opposite to the space between the pectoral and ventral fins, without spine, the second and the anal very small; a pit at the root of the caudal which has the lower lobe much developed; side of the tail with a keel; no membrana nictitans; spiracle none; mouth wide; teeth large; lanceolate not serrated, sometimes with additional basal cusps; gill openings very wide.

Temperate and tropical seas. (Gunther).

Lamna cornubica. Gm. (Porbeagle shark.)

Præoral portion of the snout longer than the longitudinal axis of the cleft of the mouth, conical pointed; angle of the mouth nearly midway between the gill opening and nostril; teeth $\frac{13}{12}$-$\frac{16}{14}$ on each side, lanceolate, with a small basal cusp on each side in adult specimens; in young specimens these cusps are absent; the *third tooth* on each side of the *upper jaw is very small*; the width of the first gill opening is nearly equal to its distance from the last; origin of the dorsal fin above the root of the pectorals, which are somewhat falciform, the length of their lower margin being nearly one-fourth of that of the upper.

A fine specimen, about three feet long, was recently captured by Mr. Frank Rush in a graball net, and to him I am indebted for the opportunity of making these observations and for enabling me on his behalf to present to the Museum collection the valuable addition of so rare a species in our waters. Mr. Morton has since most skillfully stuffed the example which may be seen in the Museum.