The San Domingo specimen is about 14 inches long, to base of tail; the tail is 13 inches long, round and scaly, like that of a rat. The long, tapered, flexible snout is naked and pinkish white. The body is mostly covered with long, coarse, brown hair, which becomes finer and light yellowish brown or tawny on the head, shoulders and neck. The hind quarters and thighs are partly naked and covered with rough, wart-like excrescences and irregular coarse wrinkles. The fore legs are strong, with large stout claws, which are less curved than in the Cuban species.

It is nocturnal in its habits, living by day in the deep holes and crevices of the cavernous limestone. It feeds, in the wild state, largely on insects and their larvæ, tearing old logs and stumps in pieces to obtain them. But it will also eat the eggs and young of birds, as well as various fruits, and sometimes it is destructive to young poultry, it is said. In confinement it is almost omnivorous and will eat meat freely. This specimen is a female. It gave birth to three naked young ones soon after its capture, but very soon devoured them. It is said to be very stupid when pursued by dogs.

A. E. VERRILL

A NOTE ON THE HAMMERHEAD SHARK (SPHYRNA ZYGÆNA) AND ITS FOOD

DURING the third week in July, 1906, several large sharks were seen, at high water, in various parts of the harbor of Beaufort, N. C. On the twentieth Captain Ed. Robinson, of the sharpie *Gladys,* harpooned one which was chasing large sting-rays (*Dasyatis say* is the form most common at Beaufort) over some sand flats. The harpoon tore out, but, when the fish came up again, another throw was more successful and the shark, which proved to be a hammerhead, was secured. Practically all those who have recorded the capture of hammerheads have noted that when hooked they made violent efforts to escape. This one, when harpooned, made so little resistance that Captain Robinson in describing its capture expressed considerable disappointment at the tameness of the affair. This capture was made in a narrow channel within two hundred yards of the wharves of the business part of Beaufort. Eighteen hours later I secured the fish, towed it over to the laboratory wharf and swung it up by a block and tackle to a davit, where it was photographed, measured and dissected.

This was the largest shark ever captured in Beaufort Harbor, and it was carefully measured. Thinking that these measurements may be of interest and value, I give the most important. Length all over, 12 ft. 6 in.; length of 'hammer' between eyes, 3 ft.; girth at first gill-slit, 4 ft. 2 in.; girth in front of pectorals, 4 ft. 2 in.; in front of pelvics, 4 ft. 1 in.; at root of caudal, 1 ft. 6 in.; length of right pectoral fin, 2 ft. 1 in.; of dorsal, 2 ft. 6 in.; of right pelvic, 1 ft. 1 in.; of second dorsal, 10 in.; of ventral lobe of caudal, 1 ft. 7 in.; of dorsal lobe of caudal, 3 ft. 6 in. There being no means at hand for weighing the animal, estimates only could be made, but, judging by the number of men required to hoist it with a tackle having three pulleys, it must have weighed at least 800–1,000 pounds.

This shark was a female and was dissected with the hope that embryos might be found in the uteri, but all the generative organs were practically unrecognizable. This was due to the stones thrown down the gullet by boys while it was hanging overboard the sharpie (the head being above water), and to the churning brought about by the movements of the tide and by its being successively hauled up for people to inspect and let go into the water again. The posterior cardinal sinuses were in good condition and were as large as a man's thigh. Their walls were cavernous by virtue of the extraordinary development of the tendinous prolongations of the lining membrane.

The stomach contained, in addition to the stones above mentioned, an almost perfect skeleton of a fair-sized sting-ray together with many cartilaginous fragments plainly having the same origin. However the most interesting thing found in the beast was the great number of sting-ray (*Dasyatis say?*) stings present in the body and mouth. In the process of skinning the fish, several were found in the neck region and in the back. However, in cutting out the jaws for a museum specimen,

I found the mouth parts to be a perfect mine of stings. In all fifty were extracted, more than forty of which were imbedded in the flesh adherent to the jaw cartilages. These stings varied in size from perfect specimens four or five inches in length to broken-off tips hardly more than one inch long. These broken-off stings were especially abundant at the angles of the jaws where as many as three or four tips were frequently found in a cube of flesh one inch square and two inches long. One can only conjecture how many could have been found by a careful dissection of the flesh of the mouth and throat. The dissection of the jaws was not gotten at until about forty hours after the capture of the shark and its condition consequently was such as to prevent the minute dissection necessary to extract all the spines in the throat region. The lower jaw cartilages were scarred and ridged from angle to symphysis, evidently by stings received in former combats. Some of the stings were manifestly but newly implanted, for the flesh around them was still red from congested blood, in other cases the redness had all disappeared, while some of the stings were plainly old, being imbedded in cysts. Especially was this latter condition true of those piercing the membrane surrounding the cartilages.

Not knowing that anything has been discovered as to the especial food of the hammerhead shark, I wish to advance the suggestion that this is to a certain degree made up of its not far distant kinsman, the sting-ray. This suggestion is based on three facts. First, that this shark was chasing sting-rays when harpooned, and was so eager in the chase that, when the first 'iron' pulled out, it kept up the chase in the neighborhood of the boat until harpooned a second time. Secondly, on the finding of the skeletal remains of rays in its stomach. The whole skeleton of a long-tailed ray found there seems to prove that the remains were not those of the butterfly ray (*Pteroplatea maclura*), which is abundant at Beaufort, but of *Dasyatis say*, the most common armed form. Thirdly, the very large number of stings found in and around the mouth parts indicates the number of rays which this shark caught and which had been successful in stinging it.

Since writing the above paragraph, my attention has been called by Dr. Theodore Gill to a note by Dr. Edwin Linton in which the latter states that from dissections of fifteen small specimens of another species of the same genus of shark, *Sphyrna tiburo*, at Beaufort, he found that the food consisted chiefly of Crustacea—blue crabs, *Mantis* and other shrimps, and acorn barnacles—of seaweed, and of pieces of fish used for bait; but not of whole fish such as they might be expected to prey upon.[1]

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January 24, 1907

Do Offspring Inherit Equally from Each Parent?

The alleged fact that offspring inherit equally from each parent, together with the striking parity, in number, size and form, between the chromosomes of the mature male and female germ cells, notwithstanding the great disproportion in size between the egg and the spermatozoon themselves, is frequently advanced as one of the strongest supports of the chromosome theory of inheritance.

But do we inherit equally from each parent? What seems obvious at first glance becomes very doubtful upon closer inspection. The vast majority of the characters of a given organism, such, for example, as make it an animal and a vertebrate of a given genus and species, are obviously characters which are common to both parents. The only characters which we can measure are the minor ones of individual or specific peculiarity, and while these, apparently, may be derived equally from either parent, this conclusion is very different from one which would affirm that the qualities of the offspring as a whole are derived equally from each parent. The hybridist can

[1] These observations were made while I was acting as a temporary assistant in the Fisheries Laboratory at Beaufort. For permission to publish them here, I wish to thank the Commissioner, Hon. George M. Bowers.