

# TIGERS OF THE SEA

### All Theories of Scientists Upset by Invasion of Local Waters by Man Eaters

By JOHN WALKER HARRINGTON

WITH lazy fins he swims the ocean ways, this creature of the tropic deeps, and sometimes a victim slays upon the margins of our northern seas.

So rare is his coming that there prevailed a belief that he never killed in Atlantic coast waters north of Hatteras. That there was good ground for this feeling of security is evidenced by the fact that scientists insist that the past fortnight has produced the first authentic cases in these latitudes of human beings having been actually destroyed by sharks. The facts of Charles Bruder, the Swiss bellboy whose legs were bitten off while he was in bathing beyond the surf line at Spring Lake, and that of Charles F. Vansant, who was mangled while swimming at Beach Haven by a monster whose glistening fins were plainly seen, have been widely discussed as showing that the sea wolf lurks along the New Jersey shores.

One man eater might have attacked both men, for although the waters off the eastern seaboard teem with some fifteen varieties of sharks both great and small—big sharks with small teeth and little sharks which look like animated saws—sharks of the kind that made the killings reported are only chance visitors in this quarter of the ocean. Even in the equatorial regions where the man eating shark dwells the tragedies laid to him are few.

The appearance of a shark in Matawan creek last Wednesday, where it killed a boy, Lester Stillwell, and a man, Stanley Fisher, who went to his rescue, and mangled another boy, Joseph R. Dunn, was an even greater surprise than the two previous attacks on bathers. Old fishermen said it was unheard of for sharks to travel so far inland.

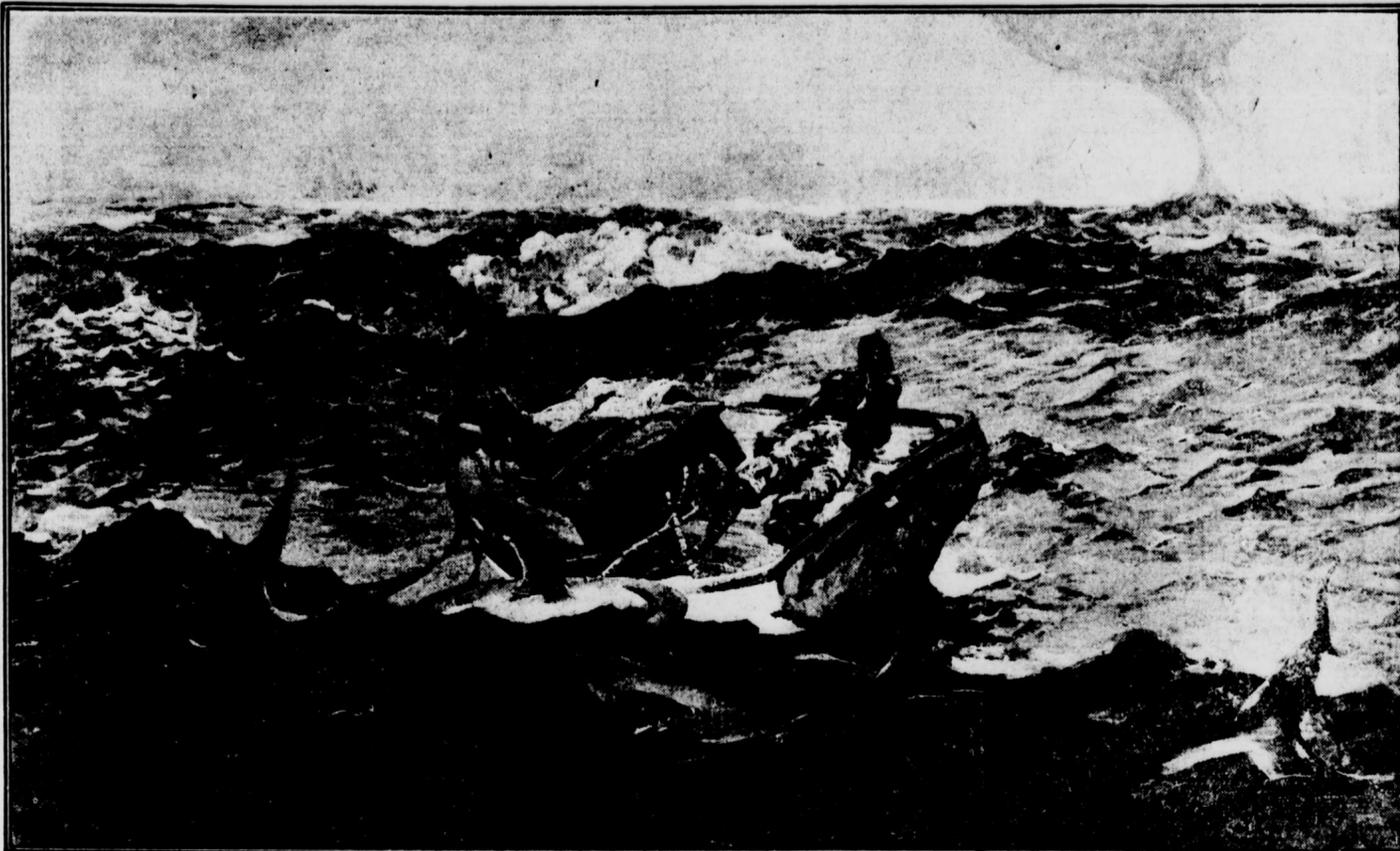
So seldom does danger from sharks impend that the late Hermann Geirichs, one of the strongest and boldest swimmers the New Jersey coast has ever known, made an offer in THE SUN of a reward of \$500 for a well authenticated case of a man having been attacked by a shark in temperate waters. The reward, which was offered in 1890, was never claimed. It stirred up much comment, however, and a general overhauling of natural history archives.

The nearest to a circumstantial account of a shark's seeking the life of a man was that which was reported from Greenport, L. I. A sailor who was swimming ashore from a ship near Horton Point was bitten on the hip by a supposed shark, and with great difficulty was rescued by fishermen. He suffered much loss of blood, and was revived when taken ashore.

The man was carried in a wagon to Greenport and treated by a surgeon, who succeeded in saving him after several months of weakness and exhaustion. It is unfortunate, however, that neither the name of the man nor that of the vessel is at hand; in fact, there is no official record by which this account can be substantiated.

The real man eater, the *Carcharodon carcharias*, will when the chance offers attack human beings. He ranges the seas seeking his prey, just as the lion roams the jungle or the wolf prowls through the woods. He makes his lair in the great Gulf Stream. At this season of the year the Gulf Stream bears to the northern Atlantic a host of the finny denizens of the southern waters, and with them come the sharks.

The great white shark or man eater, is a cold blooded fish enough, but he seldom ventures into chilly water. When the Gulf Stream boils under the copper skies the sea wolf starts in his indolent zigzag course for the higher latitudes, keeping at first well within the limits of the tropic current. He and his kind are shown graphically in Winslow Homer's well known painting "The Gulf Stream" in the Metropolitan Museum of Art in this city. On the deck of a dismasted hulk is a negro, and in



SHARKS WAITING FOR THEIR PREY. FROM "THE GULF STREAM," THE PAINTING BY WINSLOW HOMER, IN THE METROPOLITAN MUSEUM.

seventy feet in length and was undoubtedly the largest fish that ever swam the ancient seas.

The great white shark when young is white underneath and black or gray on the back. As he grows older he acquires the peculiar, sickly, grayish white which gives him his name. An evil spirit of the deep he seems, for there is something about him that fills man with that instinctive dread felt for the snake.

The body of the fish, shiny, celike, sinuous and marked by heavy fins, moves with an insinuating glide. The stout muscles under the rough skin give uncanny force to his onward drive. The beaming, chinless face, the evil, murderous, underhanging jaw, the cold and staring eyes, the gleaming, jagged teeth impart to the man eating shark that diabolical aspect which has made him the terror of human mind on all the seas. Like most of the tribe, he turns himself on his back to bite, for as his underjaw is so much shorter than the upper he must do this to keep the snout from interference. When he sees a small object on the surface he will aim for it in the natural position and lift his head out of the water to snap at it.

The structure of the white shark has been studied from a few specimens which have been obtained in the southern waters of the United States. A very good specimen was taken in December, 1913, by Sidney M. Colgate of this city and his party, who went out on a cruise from Palm Beach, with Bert Hiscock, an expert fisherman, as their



Capture of a six foot shark at Beach Haven, N. J. E. F. Warner, with the rod, and Herbert Savage, with the revolver, both of Field and Stream, fought the shark for thirty-five minutes before getting it into shallow water, where three shots finished it. Copyright, Underwood & Underwood.

in the water. Dr. Townsend spoke the other day of one or two cases in the Society Islands, in which natives who were riding on the ponderous surf planks, the forerunners of our aquaplanes, had fallen off and were dragged under by sharks. In the Far East, where thousands of men make a living by diving for the pearl oyster, sharks are seen in large numbers. Many of the creatures are killed by the deft knife thrusts of the divers.

The people of the West Indies are at many of the ports almost amphibious. They have frequently killed all varieties of sharks, even the dreaded man eater, without sustaining injuries themselves. Several years ago by means of an ingeniously constructed diving bell apparatus, reached from a collapsible tube, pictures were taken at Nassau of the life under the sea. There the moving picture operator who was working for the Universal Film Company took the so-called Williamson reels, which showed the dark skinned divers actually killing monster sharks. As the shark must turn on his back to make his bite effective, the diver could swim about him, grab a fin and send a fatal stroke home just at a vital spot.

Although the natives have an almost superstitious fear of the tiger shark, so-called from his stripes, the cases of deaths from sharks of all types are almost as rare in the Antilles as they are on the seaboard of the United States.

The fight between man and shark is a hard one, for the big toothed fish has wonderful vitality and

### Recent Deaths Break Long Record of Im- munity From Sharks North of Hatteras

good to eat. The Chinese esteem the shark fins as a great delicacy. Large quantities of the fins are shipped to the Celestian republic from our Western coasts.

Shark oil was in high request as a lubricant for watches. The skin of the shark and of fish of allied species is used in the making of shagreen, a leather which, especially in the hands of the oriental artificers, can be made into decorative leather cushions and book and manuscript covers of rare beauty.

And wild as is the nature of sharks, think not of them without their family ties. In the summer, when the Gulf Stream flows, they drift into the bays of the New York and New Jersey coast. There the young are brought forth alive, and are often caught by fishing parties. At such places as Long Beach are found the dogfish, smooth skinned and agile, and also the young hammerhead, a type between a T square and a semaphore, with his eyes perched out at the end of bony cross-pieces. These babies often grow to enormous size, and even the hammerhead has been known to reach a length of thirty feet.

You who have visited Beach Haven and Egg Harbor and such resorts will probably remember the venerable fisherman who took you out in catboats for the express purpose of killing "shearwaters," as they call them, and many a young might-have-been monster has been dragged wriggling from the line.

Let none think that the shark is an exotic, as far as we are concerned, along these coasts. Often their shining backs may be seen off Robin's Reef and the glint of their fins is spied off Bayonne despite the sledge which is so hard on pacific wanderers.

Sharks have been caught for many years off the Jersey shore. The grizzled fishermen find many a fine specimen in the big pound nets near Sandy Hook. In fact, most of the injuries which men have received from the teeth or the tails of sharks in this vicinity have been due to their efforts to kill the creatures with clubs or axes after they have been caught.

As a general thing the shark is cowardly and is not looking for a fight. Only the great white one has the name of spoiling for trouble. Many a sailor no doubt has been devoured by sharks in our latitudes, but only after life had long been extinct. The favorite food of sharks in these waters is fish, especially flounders or plaice, creatures which lie close to the bottom. Fire Island inlet is a favorite hunting ground for the tribe.

The common type of shark found about here is the ground shark, which attains a length of from six to ten feet. It can be found in the southern waters and at many points along the Atlantic as far north as Cape Cod. The small toothed nurse shark is frequently seen by the fishermen, and there is a record of one being brought ashore in 1885 by the crew of the Amagansett (L. I.) Life Saving Station.

The tiger shark, like the man eater, is a straggler, and has been seen along the Massachusetts coast. One was killed off Long Island in 1911 by Captain John Leese. Two small man eaters were taken at Wood's Hole in 1903.

The great blue shark, which is one of the harriest specimens and a special friend of little Brother Remora, is one of the finest looking of the genus. The dusky shark is a peculiar creature which the New Jersey fishermen call the "San-tago," because there is a tradition that his spotted family left the coast of Cuba on account of cannibalism which ensued when the fleets of Cervera and Sampson met. He is also called the Spanish shark, for they of the smacks have a way of naming every fish Spanish whose looks and habits are mysterious to them. The brown shark is thoroughly at home in the Great South Bay, and the inhabitants of Bayville often go in quest of them with his hooks and salt pork.

There are many other varieties which have been described by the local naturalists, such as the spotted fin, the round nosed, the sharp nosed, the shovel head, the thresher, the sand shark, the



HUGE MAN EATING SHARK KILLED OFF PALM BEACH, FLA.

the water alongside sharks swim about with their mouths upturned waiting for his exhausted or dead body to slip into the water.

Sharks leave the Gulf Stream when they reach the northern seas if the water to the west of them is warm enough or they are drawn by the prospect of good food. The smaller varieties will enter the surf and even disport in the harbors, but the larger ones, being essentially pelagic creatures, keep in the deep water as a rule.

The great white shark grows to be from thirty-five to forty feet long. He is the strongest and the boldest of his genus. According to Linnaeus, he is the least of his kind who swallowed Joban, and in the days of Ninveh he might have attained a far greater length than the specimens which have been observed in the seas of the New World.

The shark has changed little in appearance since the beginning of his history. The great white shark retains all the characteristics of the prehistoric variety from which he descended. He has the same teeth of jaw and the deep set, triangular teeth of his brothers of the lost seas. There hangs in the American Museum of Natural History a remarkable head of a prehistoric shark in the jaws of which a man can easily sit and have room to spare.

There is much in common between this monster of the tertiary period and the ranger from the Gulf Stream, especially in the way in which both go after their prey. The ancient type was fully

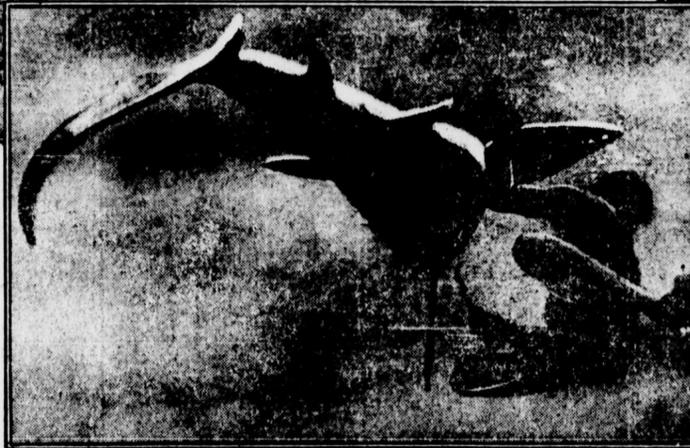
guide. It is common to go shark fishing down in that region, where there are many of the so-called ground variety which attain great size.

The party harpooned a shark, that at once put up a strong fight. First he bit the wooden shank of the harpoon in two and then started for the boat. He had already ripped off one of the upper jaws with his sharp and powerful teeth, but several revolver shots taking effect near his fins put him out of commission for good.

This shark, which had all the characteristics of the man eater, was hauled up on the beach and a series of photographs made, which have been of value to science. The serrated teeth are shown by these studies to have that peculiar sharpness possessed by those which killed young Bruder at Spring Lake.

The jaw of the shark, even of the large man eater, is not as strong as it is commonly supposed to be, and few except the larger ones can bite through the bone. Where the legs of human beings are taken off the shark fastens his teeth into the limbs directly over a joint, so that the amputation is made through the tendons. As the great fish can drag his victims under water, and so drown them, he can dispose of them at his leisure.

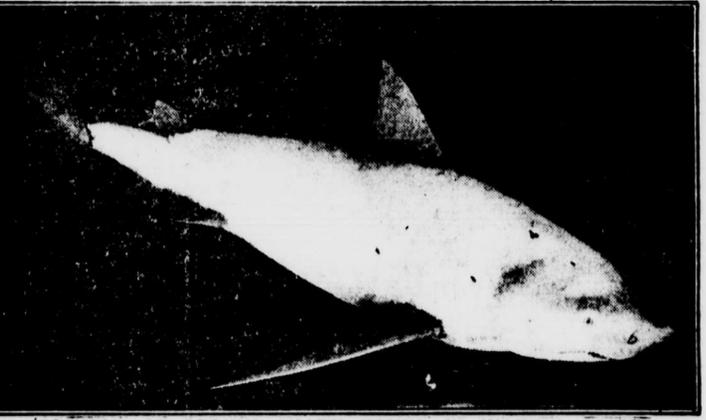
Dr. Charles H. Townsend, the director of the New York Aquarium, who has observed the habits of fish in all parts of the world, tells of the greedy habits of the shark as he studied them while he was making the fisheries survey on the



NATIVE METHOD OF KILLING A SHARK UNDER WATER. From a motion picture taken from a diving bell at Nassau, B. I. Courtesy Universal Film Company.

Albatross. The sailors, partly for amusement and partly because these sons of the sea have an inborn desire to avenge themselves on sharks whenever they can, used to mangle for them from alongside, haul them up on deck with tackle and several tin balls.

Even in the tropical zones the casualties due to sharks are comparatively few, considering the great risk which the natives will frequently take



COMMON OR GROUND SHARK, FOUND IN WATERS ABOUT KEY WEST.

From American Museum of Natural History.

sensibility to ordinary pain. After a whale has been harpooned and taken aboardside sharks frequently gather in schools waiting for the cutting to begin. If there is delay they will bite into the whale on their own account.

The sailors who are taking off the sheets of fat will try to drive the sharks away by striking them with the sharp blubber spades. So cautious to suffering and so greedy are the sharks, however, that even after they have been mutilated they will return again and again to attack the carcass.

So much for the fierce and predatory sharks, but after all even these tough skinned vagabonds of the deep have a tender side. They often travel with several varieties of fish who are their devoted friends. There is the remora, that clings to Sir Shark by a sucking disk, and where he goes Little Remora goes. Indeed, he sticks to him closer than a brother.

Then there is the little striped pilot fish, which swims along with the shark or in front of him, as though to show the way and give him timely warning. It is recorded that once when a shark was hauled on board a vessel fishes were cast over for the seven pilot fish in his suite, and such was their devotion that one by one they permitted themselves to be caught and hoisted aboard to join him in his funeral.

Sharks are hated so much that few there are who appreciate any of their good qualities. Some of the smaller kinds, with their firm white flesh, are

porbeagle and the basking — a mangled man eater or great white shark is related to the mackerel sharks, so called on account of their ship-shape lines, which are much like those of the mackerel.

The shark being no stranger to us and not nearly as dangerous as his reputation indicates, should none the less not be considered as anything like an old friend.

Dr. Frederic A. Lucas, director of the American Museum of Natural History, says that an attack by a man eater shark in this part of the globe, which is apparently well authenticated, is now indeed without precedent. He compares it to the sudden bolt from the blue. He long worked along the lines suggested by the reward offered by Mr. Geirichs, and had been unable to substantiate the stories of loss of life.

John Trendwell, Nichols of the department of ichthyology of the museum said yesterday that the accidents off the Jersey shore were so unusual that it might be possible that both victims were attacked by one shark. He declared that the man eater was such an unaccustomed visitor that the likelihood of a bather's being injured was about the same as that he might some day be struck by lightning.

The scientists believe that taking everything into consideration the chances of persons being injured by sharks are slight if ordinary precautions are observed.