BULLETIN OF THE UNITED STATES FISH COMMISSION. 385

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190.—ARRANGEMENT WITH THE LIFE-SAVING SERVICE AND THE LIGHT-HOUSE BOARD FOR COLLECTING WHALES, PORPOISES, SHARKS, AND STRANGE FORMS OF MARINE LIFE.

By CHAS. W. SMILEY.

Reports of the stranding of strange animals upon the sea shore are often found in newspapers, but for practical purposes are of little value, because time has usually elapsed sufficient to allow the specimens to decay or to be removed. In order to enable the Fish Commission to secure some of these forms of life the Commissioner addressed the following letter to the superintendent of the life-saving service :

"I beg leave to call your attention to a service, in the interest of science and of the fishing industry, that can readily be rendered by those connected with the life saving stations.

"As United States Commissioner of Fish and Fisheries, I am desirous of obtaining a complete collection (to be deposited in the National Museum) of illustrations of the various marine animals, the occurrence or capture of which is only occasional. I refer more particularly to whales, porpoises, blackfish, grampuses, and the various other forms of the whale family. These are frequently thrown ashore by the storms, or stranded in shoals, or taken in weirs, but beyond exciting a passing interest on the part of the bystanders, very little further is heard of them. In addition to these, I may mention the great basking or bone shark, and any unknown or unidentified marine monsters, such as might possibly suggest the idea of the far famed 'sea serpent.'

"I would ask, therefore, that instructions be given to the persons connected with the Life-Saving Service, during the period of official duty or at other times, to advise me promptly, by telegraph, of the appearance, in their vicinity, of any such animals, and to endeavor to keep them in proper condition and prevent their being cut or otherwise mutilated until I can send some word. I would cheerfully pay the full value of the oil or blubber of these animals, so that there might be no inducement to cut them up. A telegram sent to the nearest station, addressed 'Professor Baird, Washington, D. C.,' will come to me without prepayment being required, if marked 'Government business, collect.' If out of the reach of the telegraph, the announcement may be sent by mail. On receipt of this communication, which should give some idea of the nature and condition of the specimen, I will at once respond—in some cases sending an expert to prepare the specimen for the Museum.

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"Some of these animals, if not too large, can be forwarded directly to Washington; others I may wish to have cast in plaster on the spot and the skeleton only removed.

"I would also be glad to be informed, in a similar manner, of the first appearance, at tolerably long intervals, of schools of mackerel, menhaden, blue-fish, porpoises, blackfish, &c."

Under date of February 2, 1883, Mr. S. I. Kimball, the superintendent, issued a circular to all the keepers and crews of United States lifesaving stations, prefacing it as follows:

"Your attention is called to the letter addressed to this office by Prof. Spencer F. Baird, U. S. Commissioner of Fish and Fisheries, and you are requested to render him all the assistance possible in furtherance of the objects specified therein not incompatible with the performance of your regular duties."

In just one week from the date of that circular the following telegram was received from J. B. Edwards, keeper of Amagansett Station No. 10, via East Hampton, Long Island, February 9, 1883:

"Have specimen of shark 9 feet 8 inches long. Three feet around largest part. Not identified by any one here. Weight 200 to 300 pounds. At present fresh."

The fuller account by letter soon arrived. It was as follows:

"The head, shaped nearly like a shark, quite flat, no teeth, and as large as any part of the body; mouth quite large; eyes I think more like a beast than shark; the skin rough like a shark, dark gray color. The fish is different from anything we have seen here before. It is not a sea-serpent, but a new kind of fish to us. Length, 9 feet 8 inches; weight, about 300 pounds."

The shark was sent for and proved a valuable specimen. Other reports followed every few weeks, so that nine months later the following list was furnished by Professor Baird to a correspondent applying for it:

"Quite a number of specimens have been already received, including some of much interest on account of their rarity. The animals reported thus far have been cetaceans and fishes, but it is probable as time passes we shall obtain specimens not only of vertebrate animals, but of the invertebrates as well. You will observe by the following list that many of the specimens were from New Jersey:

Dolphin (Tursiops subridens), Fire Island, N. Y.

Pigmy sperm-whale (Kogia goodei), Spring Lake, N. J.

Dolphin (Tursiops subridens), Turkey Gut, near Cape May, N. J.

Bottle-nose whale (Ziphius cavirostris), Barnegat, N. J.

Shark (Pseudotriacis microdon), Amagansett, N.Y.

'Star-gazer' (Astroscopus sp.), Life.Saving Station 6, N. C.

'Lump-fish' (Oyclopterus lumpus), Point Judith, R. I.

'Flute-mouth' (Fistularia serrata), Point Judith, R. I.

'Angel-fish' (Pomacanthus arcuatus), Barnegat, N. J.

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"No such arrangement as the one under consideration exists in any other country.

"Its importance to the advancement of the knowledge of the larger marine vertebrates cannot be overrated. Hitherto zoologists have been forced to content themselves with examination of specimens of which the stranding has been reported indirectly through the newspapers or otherwise. In the majority of such cases the rapid progress of decomposition has made it impossible to preserve more than the skeleton, and so it has come about that the external appearance of many large species is quite unknown. By the present admirable arrangement, however, and the extension of our railroads, a specialist can be dispatched to almost any point on the eastern coast in time to observe in a fresh state any stranded animal which may have been reported.

"Washington, D. C., November 13, 1883."

In return for the services rendered by the Life-Saving Service, copies of the reports of the Smithsonian Institution, and the reports and bulletins of the Fish Commission, are sent to the Atlantic coast stations.

Under date of November 13, 1882, a letter similar to that addressed to the superintendent of the Life-Saving Service was addressed to Vice-Admiral Stephen C. Rowan, U. S. N., chairman of the Light-House Board. Under date of February 13, 1883, the chairman of the Board addressed a circular to all keepers of light-stations, quoting Professor Baird's letter, and saying:

"Your attention is called to the letter addressed to this office by Prof. Spencer F. Baird, U. S. Commissioner of Fish and Fisheries, and you are requested to render him all the assistance possible in furtherance of the objects specified therein not incompatible with the performance of your regular duties."

Very little has resulted from the instructions to light-house keepers, as their duties do not call them to patrol the coast.

WASHINGTON, D. C., July 31, 1884.

191,-USE OF LIGHT IN SEA-FISHING.*

That light exercises a certain influence on fish is an ascertained fact; but how far it operates to attract or repel is uncertain. The drag-net fishermen have learned that, when there is much phosphorescence in the sea, herring enter the nets reluctantly, as the light which the nets produce by their movement in and through the water frightens the fish away. The idea underlying the method by which light is utilized for the capture of anchovies, of which more is said further on, is that its influence is more to repel than to attract fish. It is, however, not our purpose here to pursue this question further, but only to mention some

^{*}From Norsk Fiskeritidende, Vol. III, No. 2, April, 1884, pp. 114-116. Translated by TARLETON H. BEAN, M. D.